



**Wastewater Collection and  
Treatment Basis of Design Report**

Final

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Los Olivos Community Services District

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## WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

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## WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

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## Table of Contents

<b>ABBREVIATIONS AND ACRONYMS .....</b>	<b>I</b>
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
1.1 BACKGROUND.....	1
1.2 STUDY SERVICE AREA.....	1
<b>FIGURE 1 VICINITY MAP.....</b>	<b>2</b>
<b>FIGURE 2 DISTRICT SERVICE AREA BOUNDARY .....</b>	<b>3</b>
<b>2.0 PREVIOUS WASTEWATER STUDIES.....</b>	<b>4</b>
<b>3.0 DESIGN WASTEWATER FLOWS AND LOADS .....</b>	<b>4</b>
3.1 WASTEWATER FLOW RATES.....	4
3.1.1 Wastewater Flow Rate Peaking Factors.....	4
3.2 WASTEWATER LOADING PROJECTIONS.....	6
<b>4.0 COLLECTION SYSTEM.....</b>	<b>7</b>
4.1 GRAVITY COLLECTION DESIGN CRITERIA.....	7
4.2 LATERAL CONNECTION REQUIREMENTS .....	8
4.3 SEWAGE LIFT STATION.....	9
4.4 WASTEWATER COLLECTION SYSTEM LAYOUT.....	10
<b>FIGURE 3 GRAVITY SEWER COLLECTION SYSTEM .....</b>	<b>11</b>
<b>5.0 WASTEWATER TREATMENT PLANT.....</b>	<b>12</b>
5.1 EFFLUENT WATER DISPOSAL .....	12
5.2 TREATMENT PROCESS .....	13
5.3 HEADWORKS.....	13
<b>FIGURE 4 PROCESS FLOW DIAGRAM.....</b>	<b>14</b>
5.4 INFLUENT EQUALIZATION WITH ODOR CONTROL .....	15
5.5 SECONDARY TREATMENT .....	15
5.5.1 Liquid Sludge Storage and Disposal.....	16
5.6 REVERSE OSMOSIS (RO).....	17
5.6.1 RO Concentrate Storage and Disposal .....	18
5.7 DISINFECTION .....	18
5.8 EFFLUENT STORAGE .....	18
5.9 EFFLUENT PUMPING FACILITIES .....	18
5.10 CHEMICAL STORAGE .....	19
5.11 ELECTRICAL/CONTROL FACILITIES .....	19
5.12 BUILDINGS, SECURITY FENCING, GATE.....	19



# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

<b>FIGURE 5 WWTP LAYOUT FOR SIZING PURPOSES</b> .....	<b>20</b>
5.13 WWTP OPERATIONS AND MAINTENANCE.....	21
<b>6.0 WWTP SITING ANALYSIS</b> .....	<b>22</b>
<b>FIGURE 6 POTENTIAL WWTP SITES</b> .....	<b>24</b>
<b>FIGURE 7 POTENTIAL WWTP SITE PHOTOS</b> .....	<b>25</b>
6.1 WWTP SITING MATRIX.....	26
6.2 WWTP SITING RANKING CRITERIA.....	26
6.2.1 Developable Area.....	26
6.2.2 Access/Access Road Designation .....	27
6.2.3 Slope and Terrain Constraints.....	27
6.2.4 Proximity to District’s Lowest Elevation .....	27
6.2.5 Highway Crossing Required .....	27
6.2.6 Proximity to Creek.....	27
6.2.7 Structures within 500 feet.....	28
6.2.8 Environmental Factors .....	28
6.2.9 Inside District Boundary .....	28
6.2.10 Requirement for Additional Property for Separate Pump Station .....	28
6.2.11 Percentage of District Community Downwind.....	28
6.2.12 Weighting Factor.....	28
6.3 CRITERIA SCORING .....	29
6.4 RECOMMENDED WWTP SITES .....	31
<b>7.0 REFERENCES</b> .....	<b>33</b>

## LIST OF TABLES

Table 1 Flow Rate Peaking Factors .....	5
Table 2 Build-out Flows.....	5
Table 3 Projected Wastewater Strength.....	6
Table 4 Gravity Sewer Main Slopes and Design Depth.....	8
Table 5 Wastewater Treatment Plant Classification Table .....	21
Table 6 Certificate Requirements for Operators .....	22
Table 7 Property Size Evaluation .....	23
Table 8 WWTP Ranking Criteria .....	26
Table 9 Initial Weightings for Siting Matrix.....	29
Table 10 Siting Study Matrix .....	30

## LIST OF FIGURES

Figure 1 Vicinity Map.....	2
Figure 2 District Service Area Boundary.....	3
Figure 3 Gravity Sewer Collection System .....	11
Figure 4 Process Flow Diagram .....	14
Figure 5 WWTP Layout for Sizing Purposes .....	20



**WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT**

Figure 6 Potential WWTP Sites .....24  
Figure 7 Potential WWTP Site Photos.....25

**LIST OF APPENDICES**

**APPENDIX A LOS OLIVOS LOADING STUDY**



# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

Introduction

## Abbreviations and Acronyms

ADF	average daily flow
ADMMF	average daily maximum monthly flow
ADU	accessory dwelling unit
AOP	advanced oxidation process
BODR	basis of design report
CIP	clean in place
CSD	community services district
DDW	Department of Drinking Water
ft	foot
gpd	gallons per day
gpm	gallons per minutes
HMI	human machine interface
HP	horsepower
Los Olivos CSD/District	Los Olivos Community Service District
LOWRPP	Los Olivos Wastewater Reclamation Program Project
LOWWMP	Los Olivos Wastewater Management Plan
MBR	membrane bioreactor
MDF	maximum daily flow
NPR	non-potable reuse
OWTS	onsite wastewater treatment system
PDWF	peak dry weather flow
PF	peaking factor
ppd	pounds per day
PWWF	peak wet weather flow
PLC	programable logic controller
RO	reverse osmosis
RWQCB	Regional Water Quality Control Board
SCE	Southern California Edison
TDH	total dynamic head
UPC	Urban Planning Concepts, Inc.
UV	ultraviolet disinfection
VFD	variable frequency drive
WAS	waste activated sludge
WMP	County of Santa Barbara Los Olivos Wastewater Management Plan
WWTP	wastewater treatment plant



# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

Introduction

## 1.0 INTRODUCTION

The purpose of this Basis of Design Report (BODR) is to provide a document to the Los Olivos Community Services District (Los Olivos CSD or District) to present the design criteria for a wastewater collection and reclamation system and treatment plant to serve the Los Olivos CSD community. The design criteria are based on past District reporting, studies, and manufacturer information developed and provided by the District.

### 1.1 BACKGROUND

The unincorporated township of Los Olivos is in the Santa Ynez Valley in Santa Barbara County, California. Los Olivos is known for wine tasting, fine and casual dining, and fine art and experiences heavy tourism in the downtown commercial area on weekends and holidays throughout the year. Per County of Santa Barbara Los Olivos Wastewater Management Plan 2010 (WMP), the daily tourist population is estimated to be two to three times the population of Los Olivos during summer weekends and holidays. Los Olivos has a total of 418 parcels with approximately 350 septic systems per the WMP. There are 391 parcels within the District boundary and the remaining 27 parcels are outside the District boundary located north of Highway 154. The area is a mix of residential and commercial properties with large rural residential, viticulture, and agriculture lots surrounding the downtown commercial area.

In 1974, Santa Barbara County designated Los Olivos a Special Problems Area due to nitrate contamination of the groundwater. Los Olivos is in the Santa Ynez Uplands Groundwater Basin and groundwater monitoring has shown significant impact with the use of septic systems in the Los Olivos area. Properties in Los Olivos currently rely on individual septic systems for wastewater disposal using septic tanks and leach files. There is no sanitary sewer collection system or wastewater treatment facility in the community. The nearest wastewater treatment plant is located approximately 5 miles south in Solvang.

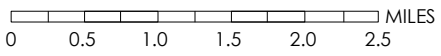
In 2018 Los Olivos voters formed the Los Olivos CSD to provide a funding mechanism for the development, building and operation of facilities needed to collect, treat, reclaim and dispose of sewage, wastewater, recycled water, and storm water in Los Olivos. Per Adopted Resolution 2019-04, the Los Olivos Wastewater Reclamation Program Project (LOWRPP) was implemented to define a strategy to provide economically viable wastewater treatment and reclamation solutions to the residents and property owners within the District that meets public health needs and the regulatory requirements of the Regional Water Quality Board (RWQCB). This BODR will focus on the phased collection and treatment system component of the Program.

### 1.2 STUDY SERVICE AREA

The proposed wastewater collection and treatment system will serve 391 parcels of the 418 parcels within the Special Problems Area. See Figure 1 for project vicinity map and Figure 2 for the District service area boundary.







**LOS OLIVOS COMMUNITY SERVICES DISTRICT SERVICE AREA BOUNDARY**


**Los Olivos**

**Buellton**

**Solvang**

**Santa Ynez**

**Legend**

-  Los Olivos Community Services District Service Area Boundary



**LOS OLIVOS, CALIFORNIA SANTA BARBARA COUNTY**

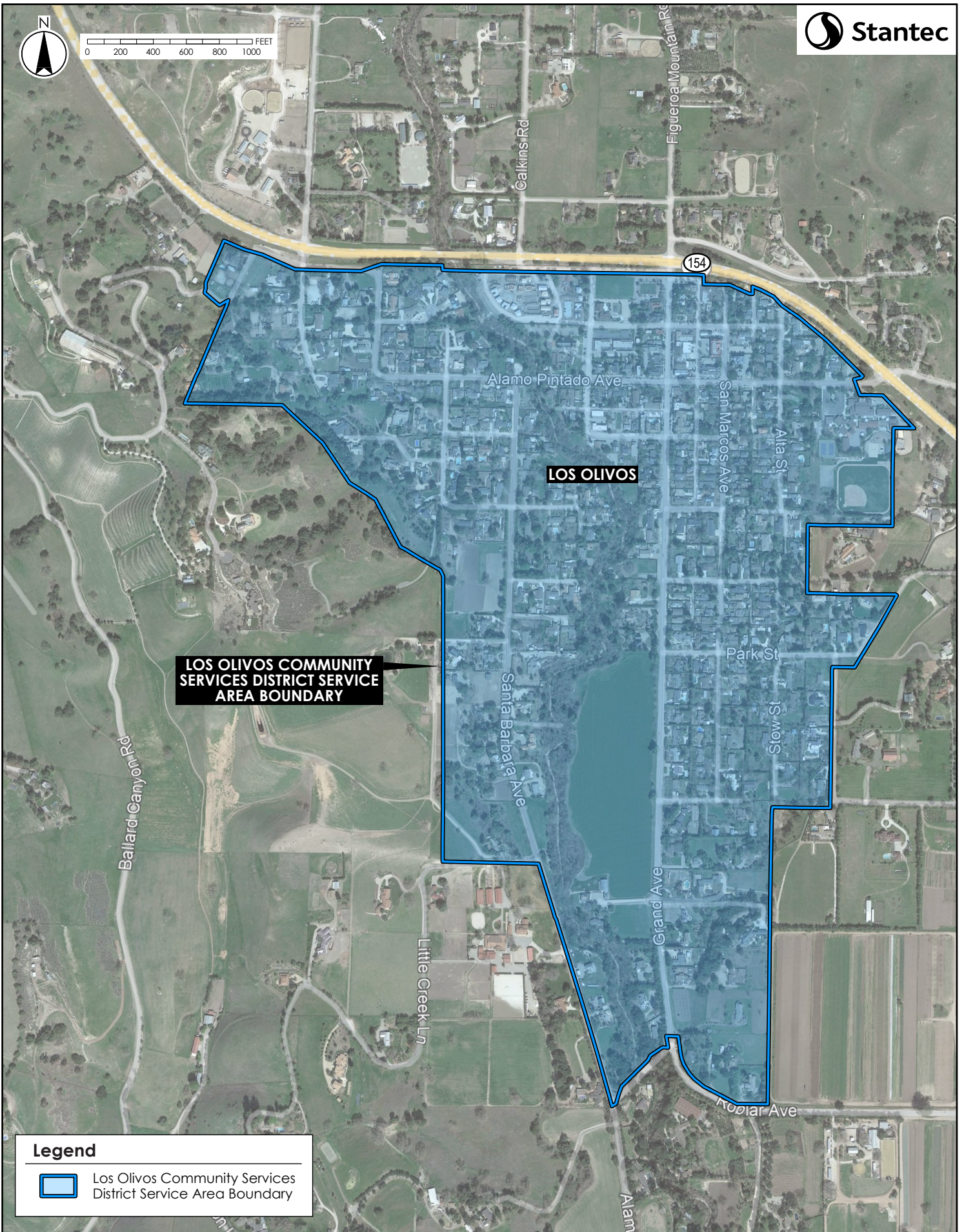
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**Figure 1  
Vicinity Map**



0 200 400 600 800 1000 FEET



**LOS OLIVOS COMMUNITY SERVICES DISTRICT SERVICE AREA BOUNDARY**

**LOS OLIVOS**

**Legend**

-  Los Olivos Community Services District Service Area Boundary

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Figure 2  
District Service Area Boundary

# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

Previous Wastewater Studies

## 2.0 PREVIOUS WASTEWATER STUDIES

Over the past decade several studies have been prepared to address the existing groundwater quality problem in the Los Olivos Special Problems Area and estimate the wastewater flows generated to preliminarily size a municipal wastewater collection and treatment facility. The key previous reports are listed below and are used as references for this BODR.

1. Santa Ynez Valley Community Plan Environmental Impact Report 2009 (EIR 2009)
2. Los Olivos Wastewater Management Plan (LOWWMP 2010)
3. Los Olivos Wastewater System Preliminary Engineering Report AECOM 2013 (PER AECOM 2013)
4. Los Olivos Special Problems Area Sewer Calculations Stantec 2015 (STN 2015)
5. Final Draft Plan for Services and Feasibility Study (Berkson 2016)
6. Update to Los Olivos Wastewater System Preliminary Engineering Report AECOM 2016 (Update AECOM 2016)
7. Desktop Study- Proposed Wastewater Treatment Plant (WWTP) Siting Study (UPC 2021)
8. Septic to Sewer Task Order No. 1 – Los Olivos Wastewater Loading Study (Stantec, 2021). This study is included in Appendix A.

## 3.0 DESIGN WASTEWATER FLOWS AND LOADS

The purpose of this section is to present wastewater design flows and loads for the new wastewater collection and treatment facility to serve the Los Olivos CSD. This section provides a summary of the flows and loads established in previous studies.

### 3.1 WASTEWATER FLOW RATES

Los Olivos does not have an existing wastewater collection system to monitor wastewater flows, loads, or constituent concentrations. Therefore, these values were estimated using typical domestic wastewater data for residential and commercial communities. In Appendix A the Los Olivos Wastewater Loading Study, Section 4.5 estimates average daily flow (ADF) and peaking factors for each of the wastewater types, e.g., commercial, residential, in possible development phases. These results are summarized in the following sections.

#### 3.1.1 Wastewater Flow Rate Peaking Factors

The following flow rate peaking factors, listed in Table 1, are recommended for design purposes for a gravity sewer collection system. The ADF is multiplied by the appropriate peaking factor to calculate the associated peak flow rates, parameters important for sizing the collection system and treatment and disposal facilities.



# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

## Design Wastewater Flows and Loads

**Table 1 Flow Rate Peaking Factors**

	Peaking Factor
Average Daily Maximum Monthly Flow (ADMMF)	1.10
ADMMF (Mattie’s Tavern)	1.33
LOCSD Recommended Peaking Factor	2.25
Maximum Daily Flow (MDF)	3.20
Peak Dry Weather Flow (PDWF)	3.37
Peak Wet Weather Flow (PWWF)	4.00

The collection system and wastewater treatment plant will be preliminarily designed for the entire District. Previous studies broke the District into three phases for wastewater treatment design purposes. Phase I is the downtown core which includes the commercial area and neighboring residential properties. Phase II is the residential area to the east and south of Phase I. Phase III includes the remaining properties in the District boundary that were not included in Phase I or II and also considers assumed growth over 20 years. These phases are broken down for treatment plant sizing purposes and does not necessarily dictate how the collection system will be built. It is assumed that Phase I properties will connect to the sewer system initially and other phases will follow. This assumption was used to layout the proposed wastewater treatment plant as described in Section 5 and shown in Figure 5. Table 2 is a summary of the build-out flows for each phase as outlined in the Loading Study attached in Appendix A. Changes to the planned phases, land use, or service area will require updates to this flow and load criteria.

**Table 2 Build-out Flows**

	ADF (gpd)	ADMMF (gpd)	LOCSD PF (ggd)	MDF (pgd)	PDWF (gpm).	PWWF (gpm)
Phase I Residential	3,118	3,430	7,016	9,978	7.3	8.7
Phase I Commercial	40,635	46,148	91,429	130,032	95.1	112.9
<b>Phase I Total: Commercial &amp; Residential Zone (rounded)</b>	<b>43,800</b>	<b>49,600</b>	<b>98,500</b>	<b>140,000</b>	<b>102</b>	<b>122</b>
Phase II Residential	10,750	11,825	24,188	34,400	25.2	29.9
<b>Phase I+II Total (rounded)</b>	<b>54,500</b>	<b>61,400</b>	<b>122,600</b>	<b>174,000</b>	<b>128</b>	<b>152</b>
Phase III Total: Overall Build-out	63,252	69,577	142,317	202,407	148.0	175.7
Estimated Accessory Dwelling Unit District wide (ADU) <sup>1</sup>	2,580	2,838	5,805	8,256,	6.0	7.2
<b>Project Total (Phase I+II+III+ADU) (rounded)</b>	<b>120,400</b>	<b>133,800</b>	<b>270,800</b>	<b>384,700</b>	<b>282</b>	<b>334</b>

<sup>1</sup> The ADU estimate was based on the 20-year buildout from the 2009 EIR. See Appendix A for more detail on flow calculations.



# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

## Design Wastewater Flows and Loads

The collection system shall be designed for peak wet weather flow rates. With influent flow equalization, the treatment plant shall be designed for maximum month flows and membranes systems shall be sized to accommodate peaks 2.0 to 2.25 times maximum month loads. Design of the equalization basin(s) shall consider diurnal flow patterns and peak flow hydrographs to assess appropriate volumes to attenuate flow to the required rates, including assessments of basin dead pools, freeboard, and potential for sequential peaks, i.e., two storm events generating inflow and infiltration driven peak flows.

### 3.2 WASTEWATER LOADING PROJECTIONS

Design of a treatment system requires the estimation of wastewater composition and strength, also referred to as constituent generation or loading, i.e., how much waste is in the wastewater. For the design of a wastewater treatment plant, key loading constituents are Biochemical Oxygen Demand (BOD<sub>5</sub>), Total Suspended Solids (TSS), and Total Kjeldahl Nitrogen (TKN). Absent historical data for Los Olivos, typical wastewater constituent generation rates (Metcalf and Eddy) are used to estimate of the Los Olivos wastewater characteristics.

Commercial properties, especially restaurants or other food related enterprises, have higher concentrations and loadings than a residential property. The estimated loading rates based on the ADMMF for the three phases for raw wastewater are detailed in Table 3. The loadings values are from the PER AECOM 2013 report that were from “Wastewater Engineering: Treatment and Reuse” by George Tchobanoglous. The AECOM 2016 Update report did not change the wastewater concentrations. See Appendix A for the Wastewater Loading study for more detail regarding wastewater loading. Phase I is primarily commercial properties and Table 3 reflects that the concentration of Phase I is the highest of all phases, with a higher proportion of residential service in the later phases.

**Table 3 Projected Wastewater Strength**

Phase	Constituent	Flow (rounded) (gpd)	Concentration (mg/L)	Loading (ppd)
Phase I	BOD <sub>5</sub>	49,600	769	318
	TSS		493	204
	TKN		99	41
Phase I+II	BOD <sub>5</sub>	61,400	658	337
	TSS		437	224
	TKN		88	45
Project Total	BOD <sub>5</sub>	133,800	416	464
	TSS		320	357
	TKN		63	70

A comprehensive sampling effort would provide data invaluable to the accurate design of the future wastewater treatment facilities. It would help ensure that the facilities can successfully treat both baseline and seasonal variation of wastewater loads and may reduce long-term costs by reducing the risks of



# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

## Collection System

under- or over-sizing. However, because each parcel has its own septic system, it is not possible to complete a composite sampling program on a mixed wastewater, meaning that a comprehensive sampling program will require sampling (and flow monitoring) from each parcel (each commercial parcel at a minimum). This would be a significant effort and cost. It is therefore recommended that the existing planning parameters be used, as presented herein, with appropriate design conservatism, especially for Phase I. After Phase I, the incoming composite wastewater can be monitored, allowing the design criteria to be adjusted accordingly for future phases in the event the entire project is not completed at one time.

## 4.0 COLLECTION SYSTEM

Conventional gravity sewage collection systems are the oldest forms of sewage collection and sanitation dating back to the Roman Empire. These systems generally require no mechanical or electrical facilities and rely solely on gravity to transport sewage from the points of connection to a central receiving location, either a transfer lift station or a wastewater treatment plant (WWTP). Gravity collection systems are designed with network of pipes placed at slopes sufficient to maintain minimum velocities to transport solids and prevent deposition and accumulation of materials in the system. Typically, the network is subdivided into primary pipes (sewer mainlines along main roads), secondary pipes, and tertiary pipes collecting wastes from individual neighborhoods and properties.

### 4.1 GRAVITY COLLECTION DESIGN CRITERIA

Wastewater contains solids (grit, eggshells, coffee grounds, whatever may go down the drain). Collection systems therefore must be designed to maintain a self-cleansing velocity (i.e., a flow that will suspend and convey solids downstream and not allow them to accumulate in the sewer). A self-cleansing velocity is generally 2 to 3 fps (feet per second). The cleaning velocity is achieved by designing the sewer pipes to have specific slopes primarily as a function of pipe diameter and flow.

Access manholes are placed at set intervals along the sewer, at pipe intersections and at changes in pipeline direction (vertically and horizontally). These manholes allow cleaning, inspection, and some maintenance of the sewage collection system.

Many agencies have minimum sewer pipe diameters to 1) minimize the potential for blockages, and 2) enable passage of CCTV cameras and cleaning equipment, independent of the flow they must convey. For example, hydraulic requirements of a sewer may only require a 6-inch diameter sewer, but an 8-inch diameter sewer is established as the minimum required.

Los Olivos CSD does not have established standard design criteria for a gravity sewer collection system. This section provides the basis of design recommended criteria to be used to layout the gravity sewer collection system based on industry standards and other local agencies.

A minimum gravity pipe diameter or pipe size, for the sewer main is recommended to be 6 inches based on a community of this size and standard practice for neighboring agencies. This size allows for cleaning the sewer collection system using industry standard equipment. Gravity pipe materials should be either



# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

## Collection System

PVC SDR3-35 or HDPE PE3408. Clay pipe will not be used. A copper tracer wire and warning tape labeled “sewer” are recommended to be constructed within the pipe to locate the pipe in the future.

Gravity sewer pipes must be adequately sloped to reduce solids from settling in the pipe and to minimize solids deposition, which can limit hydraulic capacity and generate odors.

When evaluating a gravity sewer pipe hydraulically, the maximum liquid depth to diameter ratio or the maximum percent full is used to determine when a pipe size should be increased and is also based on the pipe diameter. These ratios were calculated using the Manning’s equation for open channel flow with minimum allowable pipe slopes and a coefficient of Mannings “n” equal to 0.013, where “n” is a roughness coefficient of the pipe material. See Table 4 below for the gravity sewer main slopes and design criteria.

**Table 4 Gravity Sewer Main Slopes and Design Depth**

Pipe Size (inches)	Minimum Slope <sup>1</sup> (%)	Maximum Liquid Depth to Diameter Ratio (d/D)	Maximum Percent Full (%)
8	0.4	0.5	50
10	0.28	0.5	50
12	0.22	0.5	50
15	0.16	0.75	75

<sup>1</sup> Table 5.1 2013 AECOM Report

The minimum cover over the gravity sewer main should be at least 5 feet to allow for existing and future utility crossings with the required 1-foot vertical separation.

Manhole spacing and locations shall be at all pipe slope changes, at all changes in horizontal alignment, at the point of reverse curve, at all changes in pipe size, at the pipe terminus, and at all junctions of sewers. The maximum distance between manholes should be limited to 400 feet to accommodate industry standard lengths of sewer cleaning equipment.

## 4.2 LATERAL CONNECTION REQUIREMENTS

Once the gravity sewer collection system is constructed, property owners will need guidance and a permit process from the District for when and how to connect their private laterals. It is assumed laterals will be privately owned to the connection point of the sewer main. Property owners will be responsible for the construction to connect to the sewer main and all cleaning, maintenance, or replacement that is needed in the future. Los Olivos CSD does not have lateral connection standards and will be required to prepare standards and a permit process to be used for each property at the time of connection to the sewer main. The preparation of these standards is not part of the current scope of work, but recommendations are included in this section for the District’s consideration and use in the preliminary design phase to set elevations of the sewer mains.



## WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

### Collection System

The private sewer lateral for residential properties shall have a minimum diameter of 4 inches which is an industry and neighboring agency standard, and a minimum slope of 2 percent per the California Plumbing Code. Lateral size serving multiple family dwellings, churches, commercial, school buildings, etc., are to be the same size as the sewer drain pipe located within a building and up to 3 feet outside of the building footprint (Building Sewer) as determined by a State of California registered civil engineer and approved by the District. The pipe slope must be uniform from the sewer main to the property line. Wye branches will be used for lateral sewer connections to mainline sewers. The depth of the lateral at the property line shall be a minimum of 4 feet. A property line cleanout shall be included with all lateral connections for access to the sewer lateral for cleaning and inspections. It is recommended that cleanouts are also installed adjacent to the building and at a change of direction of the lateral, though this will be part of the private property improvements. A backwater valve would be required if the finish floor elevation of the lowest floor with a plumbing fixture is lower in elevation than the upstream manhole rim elevation to which the lateral connects. Effort must be made in design of new sewers to be lower than the floor elevations of building connections, but this is not always feasible. If it is not feasible then a pump and backwater valve are required by the property owner.

Separate lots shall not be permitted to jointly use the same lateral or building sewer, and every commercial building or non-residential facility shall be separately connected to the sewer main. However, one or more buildings located on property belonging to the same owner may be served with the same lateral or building sewer during the period of said ownership. Upon subsequent subdivision and/or sale of the portion of a lot, that portion not directly connected to a sewer main shall be separately connected with the sewer main. Where multiple parcels connect to the sewer mains with a combined lateral, multiple connections and associated charges shall still apply, as approved by the District.

Once the property is connected to the sewer main, the existing onsite septic system shall be abandoned per the County of Santa Barbara Environmental Health Services requirements at the expense of the property owner.

### 4.3 SEWAGE LIFT STATION

A sewage lift station will be required to convey wastewater from the Los Olivos gravity sewer collection system to a wastewater treatment plant regardless of the plant location. Additional sewage lift stations may be required depending on final layout of the collection system and location of the wastewater treatment plant, and effluent disposal selection. As a concept, it is assumed that the lift station will consist of a round manhole style wet well with duplex submersible pumps. One pump shall be for duty service and the other for redundancy, with alternating duty service.

The treatment plant will have influent equalization which will regulate flow to treatment. Therefore, the lift station can operate with constant speed pumps that cycle to convey collection system influent flows, regardless of the collection system flow rate. This will simplify operation and maintain force main velocity. Properly located, the lift station can provide the primary lift to the treatment plant from the collection system, possibly avoiding the requirement for an additional, treatment plant dedicated influent pump station. The pump station will also include a standby generator to allow continued operation through power outages.





## WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

### Collection System

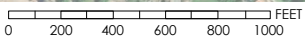
Proposed sewage lift stations will include odor control systems. The odor control solution can be assessed during detailed design. A biofilter or carbon scrubber are likely the preferred odor control solution.

The force main from the pump station to the WWTP shall be a dual force main to provide redundancy and reliability. It shall be two 6-inch diameter force mains, to be confirmed during design.

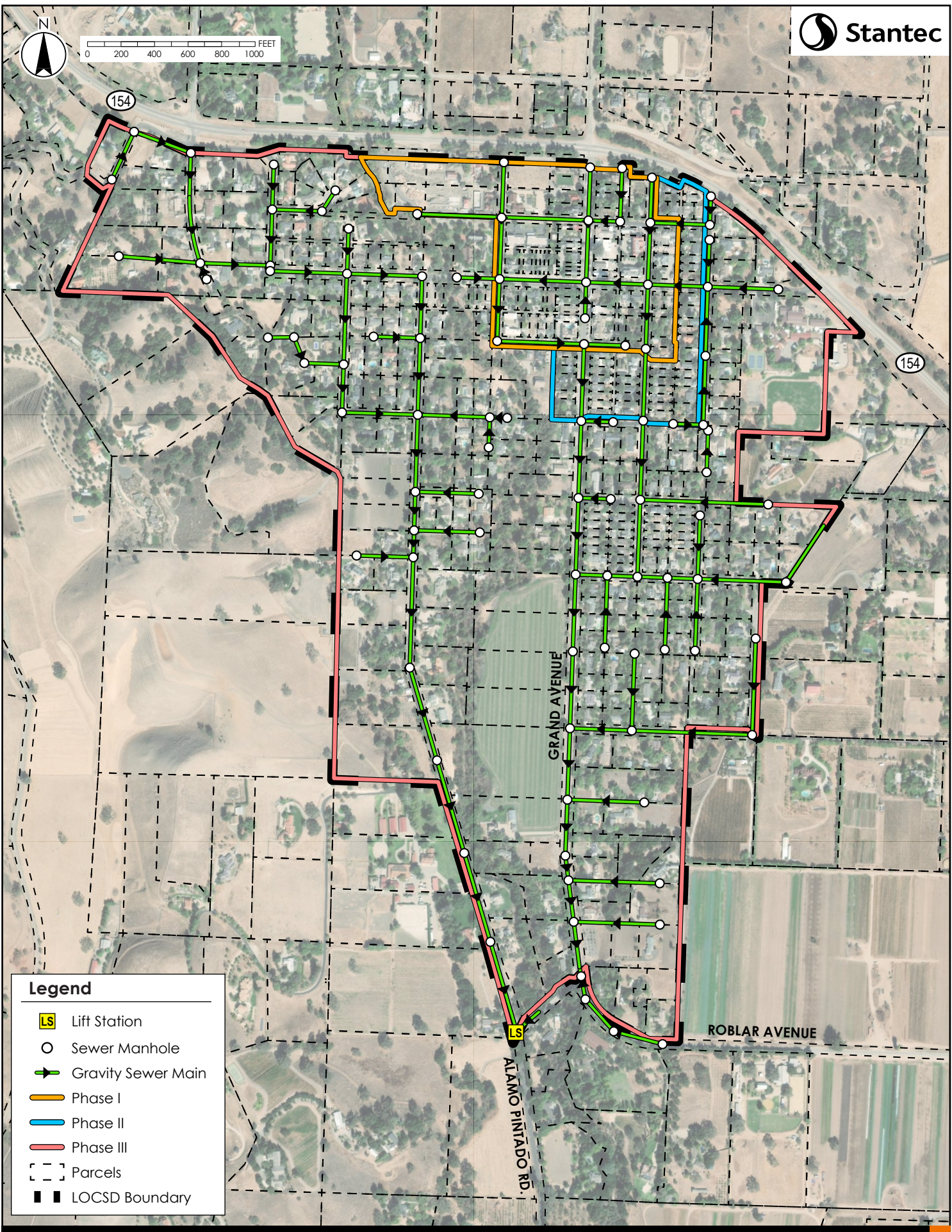
### **4.4 WASTEWATER COLLECTION SYSTEM LAYOUT**

Figure 3 shows the proposed sewer collection system assuming the WWTP location is in the southern part of the community and all sewers are shown in the public right of way. A vertical analysis of the collection has not been completed. The 30 percent design phase will refine the sewer alignments and look for opportunities to minimize the depth including proposed private easements.





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**Legend**

- LS Lift Station
- Sewer Manhole
- ➔ Gravity Sewer Main
- Phase I
- Phase II
- Phase III
- - - Parcels
- ▬ LOCSD Boundary



Figure 3  
 Preliminary Gravity Sewer Collection Layout

# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

Wastewater Treatment Plant

## 5.0 WASTEWATER TREATMENT PLANT

The Los Olivos WWTP will be required to handle buildout flows and waste loads from the District and may be phased to accommodate funding requirements.

### 5.1 EFFLUENT WATER DISPOSAL

The effluent disposal method drives the design of any WWTP process. The District is studying groundwater injection as the preferred effluent disposal method subject to further analysis and cost estimating. Groundwater injection requires the highest level of wastewater treatment, sampling, monitoring and redundancy. The following treatment process discussion is based on disposal through groundwater injection. Changes to the disposal plan will require reevaluating the treatment process, site layout, hauling considerations, and other facility requirements, possibly reducing their scope.

The final effluent water disposal criteria will be provided by the District (through their process and permitting experts and as approved by the Regional Board and Department of Drinking Water). With groundwater injection, the criteria are anticipated to adhere to California Code of Regulations Title 22 and meet the standards for Indirect Potable Reuse: Groundwater Replenishment. A Groundwater Augmentation Feasibility Study will need to be prepared to address the number of groundwater injection wells including their size, arrangement, location, and features (injection, backwash, ancillary facilities).

Permitting of the WWTP is required by the RWQCB and effluent water disposal by the Department of Drinking Water (DDW). Permitting requirements and the approval process will be performed by the District's selected permitting consultant.

To achieve groundwater injection compliance, Table 5 is a summary of the effluent water quality criteria for treatment as stated in Title 22 Article 5.2 Indirect Potable Reuse: Groundwater Replenishment – Subsurface Application. In addition to the constituents listed in Table 5, the WWTP effluent must meet all secondary drinking water contaminant limits, priority toxic pollutant limits, inorganic chemicals, radionuclide chemicals, organic chemicals, disinfection byproducts, lead, and copper.

**Table 5- Effluent Water Quality Criteria**

Constituent Name	Effluent Water Quality <sup>1</sup>	Sampling Frequency
Enteric virus	12-log reduction	Per Operation Optimization Plan
Giardia cyst	10-log reduction	Per Operation Optimization Plan
Cryptosporidium oocyst	10-log reduction	Per Operation Optimization Plan
Total Organic Carbon (TOC)	<0.5 mg/L average	weekly
Total nitrogen	<10 mg/L	Weekly, 2 samples at least three days apart

<sup>1</sup> Log reduction is base 10, i.e. 12-log = 1,000,000,000,000.



# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

## Wastewater Treatment Plant

Per Title 22 requirements for groundwater injection the treatment train shall consist of at least three separate treatment processes. For each pathogen (i.e., virus, Giardia cyst, or Cryptosporidium oocyst), a separate treatment process may be credited with no more than 6-log reduction, with at least three processes each being credited with no less than 1.0-log reduction each. Prior to operation of the groundwater injection system, an Operation Optimization Plan must be reviewed and approved by the RWQCB. The plan will identify and describe the operations, maintenance, analytical methods, monitoring necessary to meet the requirements of Title 22, and the reporting of monitoring results to the RWQCB. Los Olivos CSD will be responsible for ensuring that the Operation Optimization Plan is representative of the current operations, maintenance, and monitoring of the WWTP and groundwater injection.

## 5.2 TREATMENT PROCESS

The wastewater treatment processes are summarized below and are required to produce high-quality water for disposal using groundwater injection wells. Figure 4 shows the process flow diagram that illustrates the order of each process.

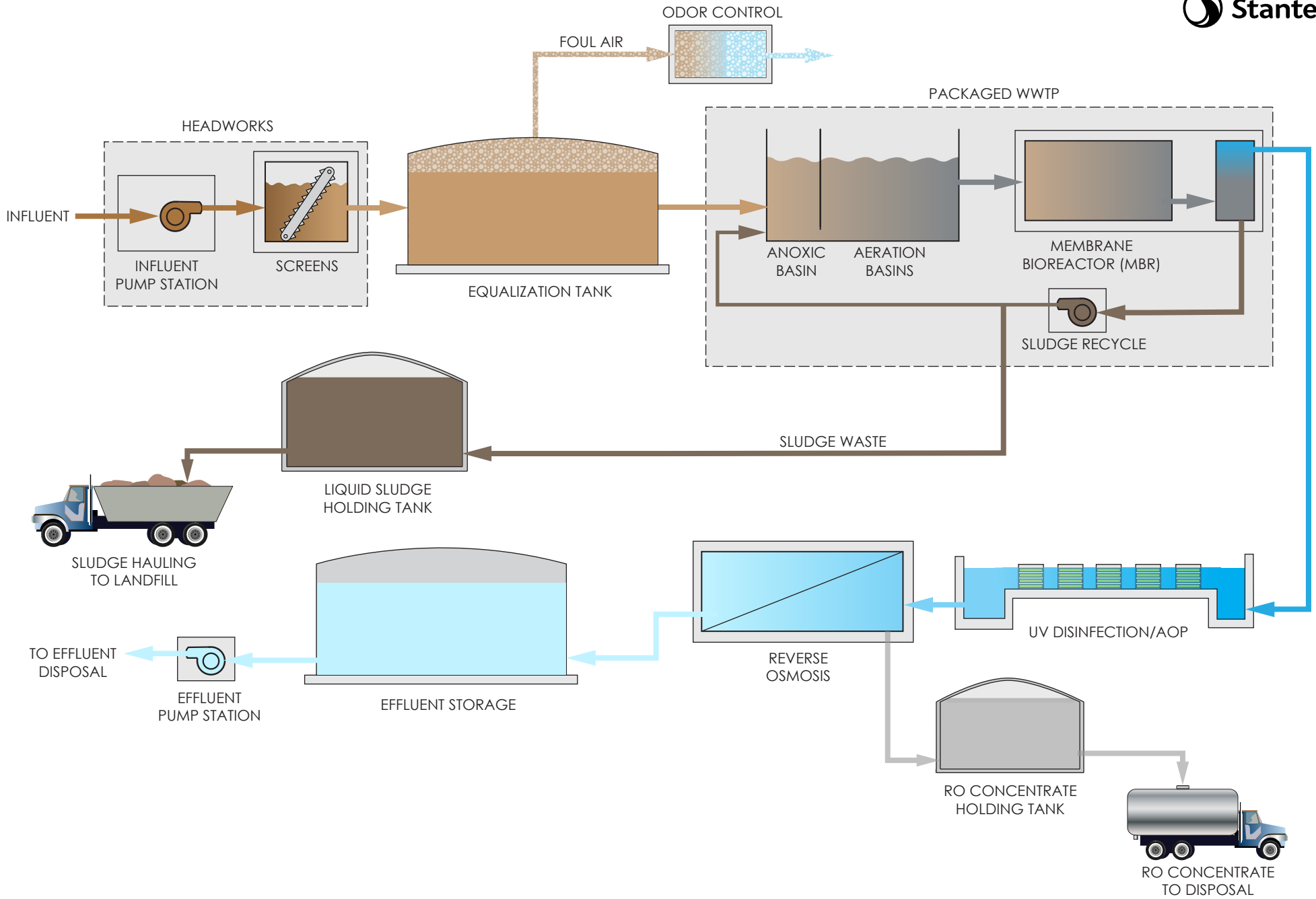
The Los Olivos CSD plans to select a manufacturer for the package treatment plant during the first quarter of 2022. The District will work with the treatment plant manufacturer's process design engineer to design, manufacturer, and supply the equipment, basins, controls, etc. Each package treatment plant manufacturer will use different tank and equipment configurations and various equipment manufacturers for the pumps, blowers, membranes, and other accessory equipment. The treatment process will require electricity, communications, and potable water (or acceptable plant water) utility services and those services can be sized once a package treatment manufacturer is selected and the treatment design prepared.

## 5.3 HEADWORKS

The influent pump station (possibly offsite – see Section 4.3), screening, and grit removal make up the headworks. The headworks will receive wastewater from the influent pump station through the grit chamber and screening.

Screens removes materials from the wastewater flow stream that can damage subsequent process equipment. The two main categories of screens are course screens and fine screens. Course screens have clear openings ranging from 0.25 to 6 inches, typically have parallel bars or rods, and can be hand-cleaned or mechanically cleaned. Fine screens have clear openings less than 0.25 inches, use stainless steel mesh or special wedge-shaped bars, and typically follow coarse screening. Fine screens remove inorganic materials from the raw sewage such as small plastics and paper, wash the materials, and compact them for disposal. The screenings waste will need to be hauled and disposed of in a landfill. Depending on the District treatment manufacturer, fine screens may be sized to eliminate the need for course screens. Redundant fine screens will be required to protect downstream membrane and other equipment under all conditions.





## WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

### Wastewater Treatment Plant

Grit is the sand, gravel, cinders, or other heavy solid material commonly found in sewage. Grit removal is important to protect mechanical equipment from abrasion, reduce heavy deposits in pipelines, and reduce the frequency of aeration basin cleaning. There are three types of grit chambers: horizontal flow, aerated, or vortex type.

The process engineer along with the package treatment manufacturer will select which type of screen and grit removal to use and the passage size of the screen. For this application, 0.25-inch maximum screen perforations are anticipated to protect the treatment equipment.

The screen and grit removal capacity needs to be able to handle the peak buildout flow rates from the influent lift station.

### 5.4 INFLUENT EQUALIZATION WITH ODOR CONTROL

The sewage flow from the collection system entering the WWTP varies throughout the day, week, and season. Minimum flows occur during the night and early morning hours when water use is at its lowest. The first peak flow usually occurs in the late morning after people have taken showers and the flow reaches the WWTP. A second peak generally occurs in the evening as part of meal preparation and clean-up. As mentioned previously, the Los Olivos population increases on the weekends and during the summer due to the tourist nature of the community. Seasonal variations in flows are typical of resort and tourist communities. Flow equalization dampens the flowrate variations of the wastewater entering the WWTP to limit flow variations and peak flow rates to treatment which improves the performance of the downstream treatment processes and reduces the size of the treatment facilities. Los Olivos CSD requested storage to hold 24 hours of influent flow in case of emergency, and, to limit the size and costs of treatment facilities, to equalize peak influent flows from the collection system to peak month flows (see Table 2). The tank will include an odor control system to remove odorous air from the tank vapor space and treat the air. The tank will also have mixing equipment and/or aeration to keep the solids from setting in the tank and to limit odor generation. An aspirator may be the right solution for efficient mixing and aeration utilizing a single pump, however, this must be determined during preliminary design. An internal wash down system will also be required.

The equalization facility will include treatment plant feed pumps, consisting of two pumps, one duty and one standby. The pumps will be able to convey max month flow rates from the equalization basin to treatment operating on variable speed control. The pump sizing may be phased to accommodate Phase I, Phase II or buildout conditions, which must be optimized during design and depending on the flow range of a single pump. It may be that one pump is optimal for Phase I and II and that it is replaced with a larger pump for Phase III.

### 5.5 SECONDARY TREATMENT

The activated sludge secondary treatment will utilize an anoxic basin or anaerobic section and multiple aeration sections for the biological treatment to remove BOD, ammonia, nitrates, and other constituents from the wastewater. It is typical to have two separate process streams to be able to take one offline for cleaning or maintenance of the system, and for reliability. Blowers and an aeration system provide the



## WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

### Wastewater Treatment Plant

necessary air for the biological treatment. The blowers will be sound attenuated positive displacement blowers. There are multiple types of aeration systems, and the typical ones for the District's treatment will be fine bubble diffused air. The size and configuration of the basins as well as the aeration system will be determined by the package treatment plant manufacturer. The type of equipment, pump horsepower (HP), and oxygen capacity of the aeration equipment will also be determined by the package treatment plant manufacturer.

The return activated sludge (RAS) process maintains the microorganisms in the aeration tank and maintains an adequate population for treatment of the wastewater. The RAS pumps are needed to collect the concentrated activated sludge (biomass) from the membrane basins and returns it to beginning of the secondary process to mix with the incoming wastewater. It is recommended to have one duty and one standby RAS pumps for each treatment train. The waste activated sludge (WAS) is the excess biomass that must be removed from the aeration basins to keep the biological system in balance. See the sludge storage and disposal section below for more information.

The Membrane Bioreactor (MBR) trains will clarify and filter the wastewater prior to the Reverse Osmosis trains. The MBR and RO process will be designed by the process engineer or the District equipment manufacturer.

All equipment shall have redundancy, i.e., there shall be adequate equipment for all applications with one of the largest units out of service. For treatment there must be multiple treatment trains. For example, for 200 gpm of treatment capacity there must be two 100 gpm independent treatment trains, or more, i.e., full treatment capacity is not required if one treatment train is out of service. The final basin and equipment configuration shall be designed by the District's manufacturer.

### 5.5.1 Liquid Sludge Storage and Disposal

Waste activated sludge is produced from the secondary treatment process and must be processed and disposed of properly. WWTPs are required to submit an annual biosolids report to the Environmental Protection Agency (EPA) describing the sludge treatment process, the biosolids distribution program (disposal method and location), the volume of biosolids, and the biosolids testing results. Typically, WWTPs process the waste activated liquid sludge into biosolids using either aerobic (with air) or anaerobic (without air) digestion to reduce the volume of biosolids and dewater the biosolids to reduce the weight before it is hauled to a final disposal facility. Composting facilities do not accept liquid sludge. Disposing of sludge without digestion or dewatering will increase the number of truck trips required for transport to a disposal location and will limit which facilities can take the material.

The District has decided to not process the sludge and instead store and transport the liquid sludge for processing at a third-party facility. Liquid sludge will require aeration, mixing, and odor control. Los Olivos CSD directed that the liquid sludge tank be 15,000 gallons and be pumped semi-monthly or monthly. A longer storage time requires a larger tank and footprint to accommodate less frequent truck trips. The storage duration will also depend on the agreement with the sludge hauler and third-party disposal facility. The final volume of the liquid sludge tank shall be based on the expected sludge production, estimated storage duration, and the required freeboard in the tank.



## WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

### Wastewater Treatment Plant

The final storage tank size and odor control system are anticipated to be designed by the District's consultant process engineer once the District has an agreement with a sludge disposal hauler and disposal facility. The need for sludge pumping to the haul truck, or if hauling trucks will have their own pumping facilities will depend on the final hauling arrangement.

## 5.6 REVERSE OSMOSIS (RO)

Reverse osmosis (RO) is a water purification process that uses a partially permeable membrane to separate unwanted particles from the wastewater at a molecular level, allowing salts and other fine waste constituents to be removed. It is recommended to have a feedwater tank to equalize the flow into the RO unit. A pump is used to pressurize the feed water and circulate it through the module. The product water of the RO is called permeate. This is the clean water suitable for groundwater injection.

The module is the complete unit comprised of the membranes, the pressure support structure of the membranes, the feed inlet and outlet permeate and concentrate ports, and an overall support structure. The main types of membrane modules are tubular, hollow fiber, and spiral wound. Pressure vessels hold the membrane modules and keep the feedwater and permeate streams isolated, minimize the buildup of salt or fouling, and allow for easy replacement of the membrane modules. The number of membrane modules needed is based on the flow and water quality from the preceding MBR process. A double pass reverse osmosis system is when the RO permeate water is fed into a second RO unit to produce more pure water. A double stage or triple stage RO is when the concentrate (the dirty water being segregated from the product water) is fed into a second or third RO system to remove more water and reduce the volume of RO concentrate. The number of passes or stages needed is based on the feedwater quality, the permeate water quality required for disposal, and the need to reduce the volume of RO concentrate for disposal. Adding more passes or stages increases the capital, operations, and maintenance costs of the equipment but may reduce the hauling and disposal costs for the RO concentrate. The District will need to select the membrane module type, configuration, and arrangement with the help of a process engineer.

As waste constituents in the feedwater accumulate on the membranes, called membrane fouling, the pressure builds up on the feed side and the flow through the membrane decreases. When the performance of the RO membrane has deteriorated to a given level, the membrane modules are taken out of service and backwashed or cleaned chemically. A permeate tank is needed to store a small amount of permeate needed for backwashing the membranes. Also, a clean-in-place (CIP) tank is needed to mix the chemicals for cleaning. Membrane fouling occurs in three general forms: (1) buildup of constituents in the feedwater on the surface of the membrane, (2) the formation of chemical precipitates due to the chemistry of the feedwater, and (3) damage to the membrane due to the presence of chemical substances that can react with the membrane or biological agents that can grow and line on the membrane. Reverse osmosis creates a waste product called RO concentrate that needs to be disposed of properly.





## WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

### Wastewater Treatment Plant

#### 5.6.1 RO Concentrate Storage and Disposal

RO concentrate is the reject water from the RO filtration process and is comprised of the constituents and contaminants found in the wastewater. The Los Olivos CSD directed that the RO concentrate be stored and pumped semi-monthly or monthly and hauled to an approved disposal facility. Longer storage time require larger tanks and larger footprints but can accommodate less frequent truck trips. The storage duration depends on the agreement with the hauler and disposal facility. The hauling frequency needs to be studied by a process engineer.

The District has indicated that they have talked with a couple agencies regarding RO concentrate disposal. Final arrangements with a facility to accept RO concentrate still need to be coordinated.

### 5.7 DISINFECTION

The ultraviolet disinfection (UV)/ advanced oxidation process (AOP) process is required to meet the groundwater injection wells treatment requirements. UV/AOP is a process when ultraviolet light, in combination with an oxidant such as hydrogen peroxide or chlorine, breaks down any remaining contaminants, bacteria or virus in the water.

UV transfers radiation energy (light) from a lamp to an organism's genetic material (DNA and RNA) that penetrates the cell wall of an organism and destroys the cell's ability to reproduce. The effectiveness of the UV disinfection system depends on the characteristics of the wastewater, the intensity of the UV radiation, the amount of time the microorganisms are exposed to the radiation, and the reactor configuration. The disinfection success is directly related to the concentration of particles in the water. The source of the UV radiation is either the low-pressure or medium pressure mercury arc lamps with low or high intensities depending on the UV supplier. The District will be required to work with the WWTP manufacturer and process engineer for the design of the UV/AOP trains.

### 5.8 EFFLUENT STORAGE

Los Olivos CSD directed the storage volume to be able to hold 24-hours of effluent, treated wastewater, in case of an issue with the effluent pumps or the groundwater injection disposal system. The District may consider a backup disposal option in case of emergency such as creek discharge. A creek discharge will require an NPDES permit issued from the Regional Board.

### 5.9 EFFLUENT PUMPING FACILITIES

Two effluent pumps are recommended to send the treated wastewater to the groundwater injection disposal system. One pump will operate, and the second pump will be a standby pump. Pumps will be provided with VFDs. The flow and total dynamic head (TDH) of the pumps will be determined once a groundwater injection location and requirements are determined.



## WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

Wastewater Treatment Plant

### 5.10 CHEMICAL STORAGE

Each chemical will require a chemical metering pump, dual-wall storage tank in case of leaks, and a containment area in case of spills.

The RO process uses multiple chemicals for operational and cleaning purposes. The specific chemicals needed depends on the cause of fouling on the RO membranes. The RO system would likely use an antiscalant to remove suspended inorganic particles due to hard water, sulfuric acid or other strong acid, sodium hydroxide or other storage base, and a disinfectant such as sodium hypochlorite to remove microorganisms that grow on the membranes. The RO membrane manufacturer will recommend the desired chemicals, their concentration and dosage range. These details, as well as the frequency options for chemical delivery, will impact the storage volume is needed for each chemical.

The AOP process requires a chemical storage tank of the oxidant, typically hydrogen peroxide.

### 5.11 ELECTRICAL/CONTROL FACILITIES

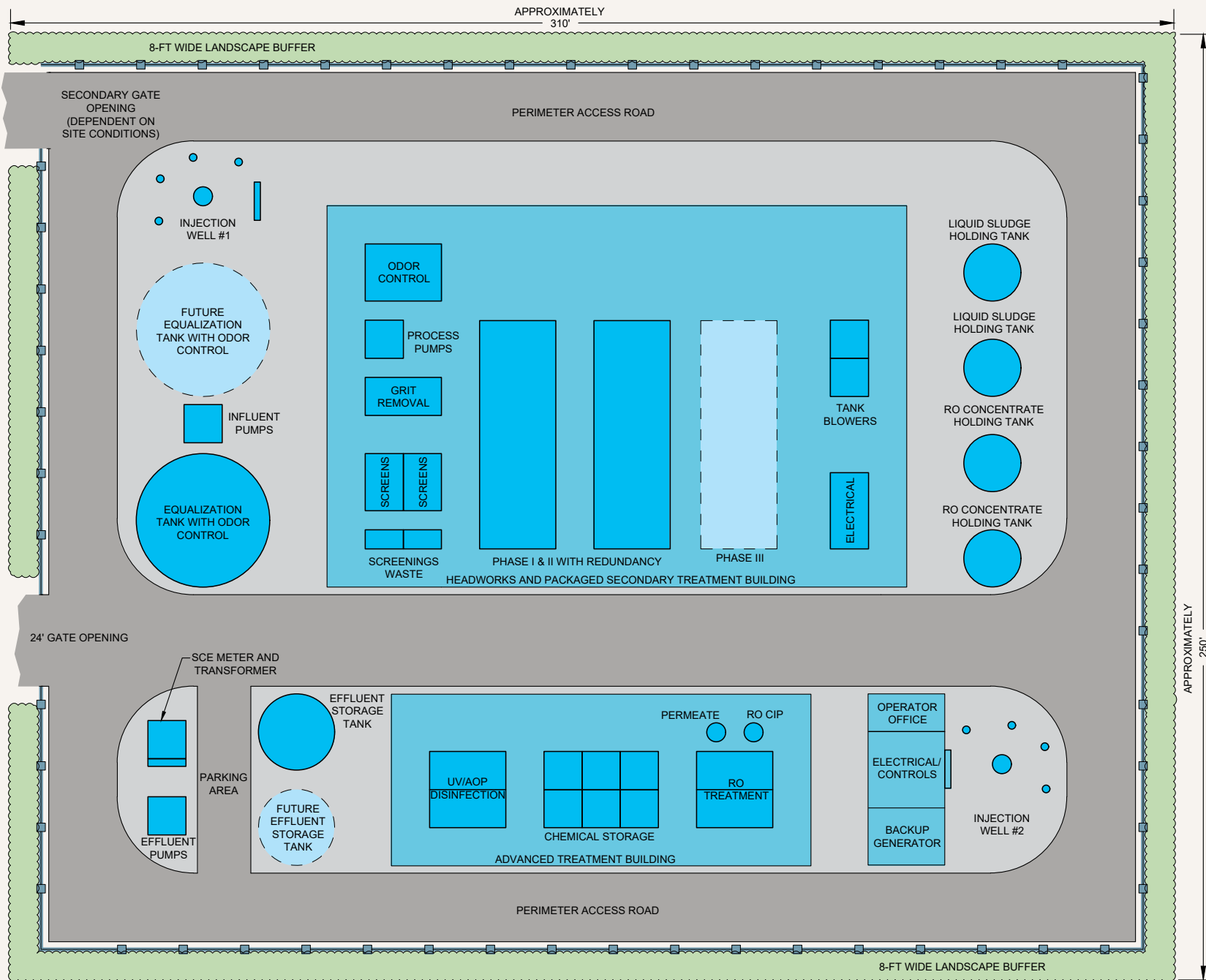
The WWTP requires electrical power and will be served by Southern California Edison (SCE). An electrical meter and transformer near the entrance gate of the WWTP is recommended for easy access by SCE. Process control and alarm notification will be provided through a preprogrammed PLC-based control system. A human machine interface (HMI) touchscreen will allow the operator to control and monitor the complete system operation through operator inputs within preset limits. Starters for the blowers and pumps, soft starts, variable frequency drives (VFDs), and power transformers will be housed in a NEMA panel. The starters and VFD drives will be installed indoors in climate controlled electrical/controls room. A SCADA (Supervisory Control and Data Acquisition) system will also be required to control the facility, provide remote alarms and remote-control capabilities for operations and District staff.

The WWTP will also include a standby generator to allow continued operation through power outages. The generator should be enclosed in a building for noise reduction purposes.

### 5.12 BUILDINGS, SECURITY FENCING, GATE

Security fencing around the WWTP site is needed to both prevent people from walking through the WWTP from a safety perspective, but also to help secure and screen the site to help blend it into the neighborhood. A landscape buffer is recommended to be on the outside of the fence to help screen the fence and the WWTP. An inconspicuous entrance gate and architectural buildings to house the treatment processes are anticipated to be developed in final design to screen the WWTP. The headworks and secondary treatment processes should be enclosed within a building with odor control prevention. The advanced treatment consisting of the reverse osmosis system, chemicals, and UV/AOP process also should be within a building. Delivery trucks, chemical trucks, and hauling trucks will need access to the WWTP and a perimeter roadway is recommended to all truck for ease of access and maintenance to all facilities. Two gates are shown for ingress/egress if the site allows (final site has not yet been selected by the District). Figure 5 shows a potential layout of the WWTP for site sizing purposes only.





**NOTES:**

1. This is a preliminary sketch only for the purpose of the Basis of Design Report. No elements of the treatment plant equipment or process have been designed.
2. The location of the influent pump station will be determined by the location of the wastewater treatment plant site.

# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

## Wastewater Treatment Plant

### 5.13 WWTP OPERATIONS AND MAINTENANCE

The WWTP must be operated by licensed operators by the State of California. The permitted capacity (design flow) of the WWTP and level of treatment determines the grade (level of experience) of operator required. The California Code of Regulations Title 23 lists the classification of the wastewater treatment plant and is shown in Table 5 below.

**Table 5 Wastewater Treatment Plant Classification Table**

Class	Wastewater Treatment Process	Design Flow (million gallons per day)
I	Primary Conventional Treatment Pond	1.0 or less All
II	Primary Biofiltration Modified Treatment Pond	Greater than 1.0 through 5.0 1.0 or less All
III	Primary Biofiltration Activated Sludge Sequencing Batch Reactor Tertiary	Greater than 5.0 through 20.0 Greater than 1.0 through 10.0 5.0 or less 1.0 or less 1.0 or less
IV	Primary Biofiltration Activated Sludge Sequencing Batch Reactor Tertiary	Greater than 20.0 Greater than 10.0 through 30.0 Greater than 5.0 through 20.0 Greater than 1.0 through 10.0 Greater than 1.0 through 10.0
V	Biofiltration Activated Sludge Sequencing Batch Reactor Tertiary	Greater than 30.0 Greater than 20.0 Greater than 10.0 Greater than 10.0

A wastewater treatment plant may be classified other than as indicated in Table 5 if:

1. The wastewater treatment plant uses unconventional or innovative approaches due to conditions of flow or unusual requirements for discharge to a receiving water.
2. The conditions of flow or the use of the receiving waters require an unusually high degree of wastewater treatment plant operational control; or
3. The wastewater treatment plant uses an approved method of wastewater treatment not included in the table.



# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

## WWTP Siting Analysis

Table 6 shows certificate requirements for the wastewater treatment plant operator. The District will need to decide to hire their own operators or secure contract operations with a third party.

**Table 6 Certificate Requirements for Operators**

Wastewater Treatment Plant Classification	Minimum Grade Level of Chief Plant Operator	Minimum Grade Level of Designated Operator-in-Charge
I	I	I
II	II	I
III	III	II
IV	IV	III
V	V	III

Frequent sampling is also required by the State of California for the WWTP and the effluent disposal by groundwater augmentation. The operations and maintenance requirements of the WWTP needs to be studied by the District, including provisions for laboratory facilities onsite (not included in the current site) or access to a third party laboratory. Operation and maintenance assessments are beyond the scope of this report.

The operator will require an office location to monitor the treatment process, perform data entry, and a temperature-controlled break area. A storage shed for tools and spare parts is also required for ongoing maintenance that will be required to the equipment.

## 6.0 WWTP SITING ANALYSIS

UPC prepared a Desktop WWTP Siting Study (UPC) in 2021 for the District. The UPC study identified 18 properties located within or near the District boundaries as potential treatment plant sites. Review of additional sites was not part of the scope of this study. This section provides a technical review of the properties identified in the report related to design and construction of a WWTP.

Figure 6 shows the 18 properties identified in the UPC study. As part of this technical review, a field visit was made to each of the properties accessible from the public right of way. The site visit included a review of site characteristics, access needs, and other site constraints. A photo summary of each site accessible is shown in Figure 7. Note that Site 1 was not accessible from the right of way and a photo was taken of the access roadway.

As discussed in Section 5, a preliminary WWTP site layout was provided to estimate the land needed for the WWTP. The preliminary WWTP site will need a minimum of 1.6 acres to accommodate the treatment process, influent/effluent storage, truck access, equipment, buildings/screening, and other onsite needs at buildout of the facility. The 1.6 minimum acres needed was established from the proposed site layout shown in Figure 5. The 18 properties were evaluated for size and those properties equal to 1.6 acres or greater were moved forward into the evaluation and analyzed further. Table 7 shows properties meeting



## WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

### WWTP Siting Analysis

the minimum property size requirements that will be evaluated using the established criteria in the siting matrix presented in Section 6.1.

**Table 7 Property Size Evaluation**

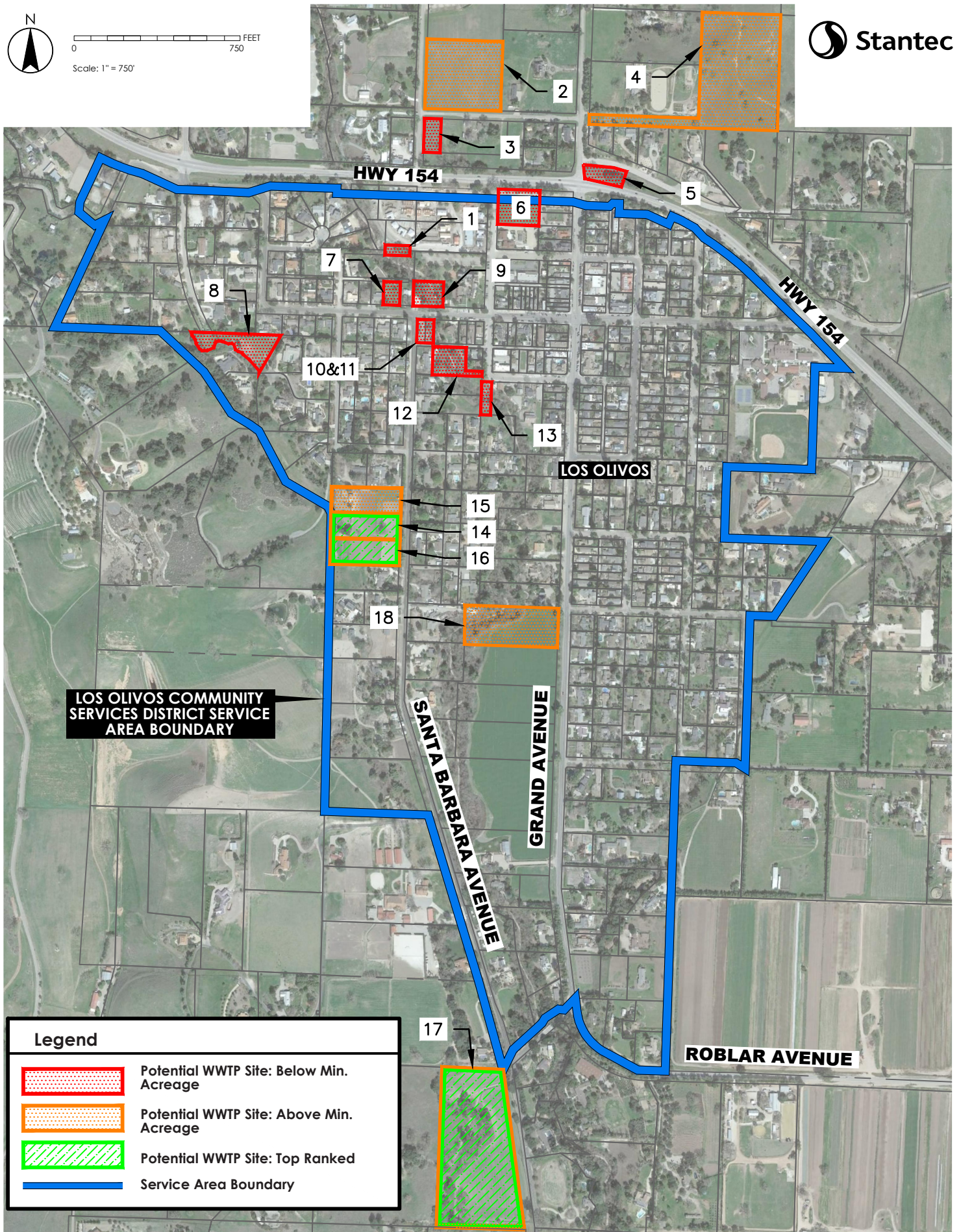
Site Number	APN	Parcel Size (acres)	Meets minimum size requirement of 1.6 acres	Notes
Site 1	County Road ROW	0.37	No	
Site 2	135030054	4.4	Yes	
Site 3	135071006	0.46	No	
Site 4	135030042	8.19	Yes	
Site 5	CalTrans ROW	0.5	No	
Site 6	135074019	0.85	No	
Site 7	135082020	0.32	No	
Site 8	135340012	1.25	No	
Site 9	135082022	0.62	No	
Site 10	135086001	0.16	No	
Site 11	135086002	0.16	No	
Site 12	135086009	0.87	No	
Site 13	135122031	0.28	No	
Site 14	135110023	1.47	No	Could be combined with neighboring property
Site 15	135110024	1.48	No	Could be combined with neighboring property
Site 16	135110025	1.47	No	Could be combined with neighboring property
Site 17	135230028	10.1	Yes	
Site 18	135180040	3.04	Yes	









0 750 FEET

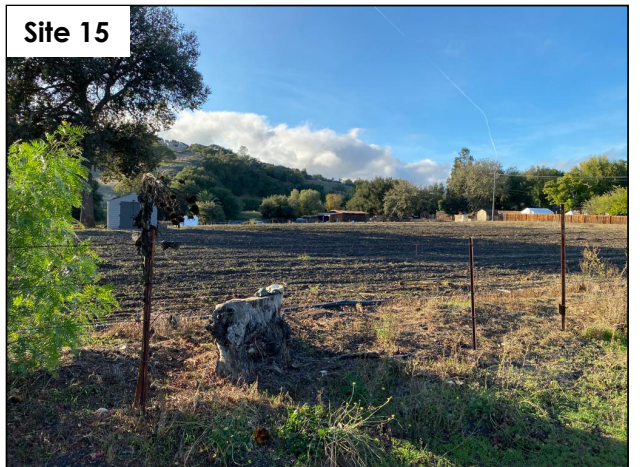
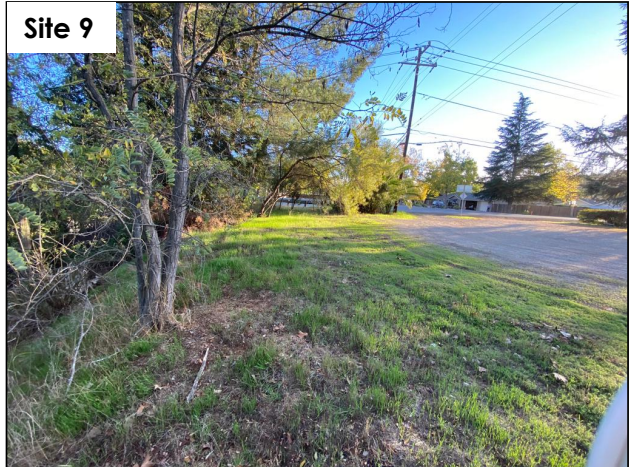
Scale: 1" = 750'



**Legend**

-  Potential WWTP Site: Below Min. Acreage
-  Potential WWTP Site: Above Min. Acreage
-  Potential WWTP Site: Top Ranked
-  Service Area Boundary

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# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

## WWTP Siting Analysis

### 6.1 WWTP SITING MATRIX

The siting matrix and criteria were developed by Stantec to assist the District and stakeholders in evaluating potential WWTP properties meeting the minimum sizing criteria to various technical factors. The matrix implements a multi-criteria decision analysis methodology including the following:

- Evaluation criteria are based on the success factors important to development of a WWTP
- Sites are given a numerical ranking (in this case 1-5, with 5 being best) for each of the selected criterion based on objective data or professional judgement (focused on the technical needs of the facility).
- Criteria categories are weighted based on their relative importance to the technical success of the facility.
- A composite weighted score is calculated for each property as the sum of the products of the ranking and weight for each criterion.

To select key criteria that can help Los Olivos identify beneficial WWTP sites, categories were identified that represent key factors for evaluating each location. The criteria defined for each category are listed in Table 8.

**Table 8 WWTP Ranking Criteria**

Description	Ranking				
	1	2	3	4	5
Developable property size	< 0.5 acres	0.5 < and < 1 acres	1 < and < 2 acres	< 2 acre	> 2 acre
Access Road Designation	Residential		State Highway		Secondary Roadway
Slope/terrain constraints	Significant constraints	-	Some constraints	-	Minimal constraints
Proximity to District's Lowest Elevation	> 1.5 miles	< 1.5 miles	< 1 miles	< 0.5 miles	< 0.1 miles
Highway Crossing Required	Yes	-	-	-	No
Proximity to Creek	0 miles	< 0.05 mile	< 0.1 miles	< 0.15 miles	> 0.2 miles
Structures within 500 feet	> 30	< 30	< 25	< 20	< 15
Environmental Factors (Tree removal)	High		Medium		Low
Within the service district area	No				Yes
Requirement for separate pump station site	Yes				No
Percent of service district community downwind	100	75	50	25	0

### 6.2 WWTP SITING RANKING CRITERIA

The following sections summarize the criteria used to evaluate each of the WWTP sites.

#### 6.2.1 Developable Area

The developable area has been preliminarily estimated based on limitations such as creek location and setback requirements, sloped terrain, etc. for the proposed properties being evaluated in the matrix. The



## WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

### WWTP Siting Analysis

design will be required to follow all local and state design guidelines and may reduce developable property size further than established herein.

#### 6.2.2 Access/Access Road Designation

This criterion ranked properties based on the Santa Ynez Valley Community Plan Circulation Element for access roadway classification. Roadway classifications are defined in the Community Plan including the design capacity and purpose. The WWTP will require truck access on a regular schedule to haul the sludge and RO concentrate to a disposal facility and to facilitate normal operation and maintenance functions. Further evaluation of the WWTP will be required to understand the storage volume and frequency of disposal and chemical delivery to understand the number of trips required. Locations accessed from a higher roadway classification were ranked higher than those locations accessed from a lower roadway classification.

#### 6.2.3 Slope and Terrain Constraints

This criterion reflects the ability to construct a WWTP on the site and includes site constraints that may limit the usable property space, or add costs to use the site, such as significant slopes, drainage features, creek crossings, seismic faults, and other site constraints. Sites with minimal constraints were scored higher than those with technically challenging elements.

#### 6.2.4 Proximity to District's Lowest Elevation

This criterion reflects the proposed site elevation relatively compared to the District's lowest ground surface elevation. The overall site topography follows the Alamo Pintado Creek south, with the lowest general elevation being at the southern end of the District's boundaries. When evaluating a gravity sewer system for the District, wastewater will flow by gravity to the southern portion of the District. Properties located in the southern portion of the District and at lower elevations were ranked higher than locations at a higher elevation. WWTP locations further north within the District will require pumping.

#### 6.2.5 Highway Crossing Required

This criterion evaluated if a property would require a pipe crossing Highway 154 to serve the community. A pipeline crossing the highway is technically challenging to construct to Caltrans' design criteria and adds significant cost to the facility. Locations that do not require a highway crossing were ranked higher than locations that did require a highway crossing.

#### 6.2.6 Proximity to Creek

This criterion was established to review the proximity of the WWTP to Alamo Pintado Creek. Properties located closer to the creek do not have a buffer in the event of a spill and may require mitigation measures during design. Additional measures may be placed on construction as a result of further biological or cultural resource studies. Properties located further from the creek were ranked higher than those located closer to the creek.



## WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

### WWTP Siting Analysis

#### 6.2.7 Structures within 500 feet

This criterion was established to help quantify the number of neighbors within 500 feet to the proposed WWTP. Properties with fewer neighbors were ranked higher than those with more neighbors.

#### 6.2.8 Environmental Factors

This criterion was established to evaluate the environmental impacts such as tree removal and risks associated with work near a creek. Properties with minimal environmental factors were ranked higher than those with significant impacts.

#### 6.2.9 Inside District Boundary

This criterion was established to note properties inside the established district boundary and those outside of the district boundary. While the district does have authority to locate a wastewater treatment plant outside of its boundaries, properties located inside the district boundary were ranked higher than those outside.

#### 6.2.10 Requirement for Additional Property for Separate Pump Station

This criterion was established to distinguish proposed sites that will require additional land purchase for the influent pump station. WWTP sites located in the southern portion of the District may be able to accommodate the influent pump station onsite and are ranked higher while properties further north will require additional property for a pump station in the southern portion of the collection system.

#### 6.2.11 Percentage of District Community Downwind

The prevailing winds are from north to south through the District. This criterion was established to document the percent of community within the service district boundary that may be impacted from potential odors associated with the WWTP. Properties with less percentage of the community to the south were ranked higher than properties with a higher percentage of the community to the south.

#### 6.2.12 Weighting Factor

Relative importance weightings were applied to each of the criteria listed above. Criteria weights capture the relative importance of each of the criteria related to the placement and development of a WWTP.



# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

## WWTP Siting Analysis

**Table 9 Initial Weightings for Siting Matrix**

<b>Site Location</b>	<b>Property Size (Minimum of 1.6 Acres)</b>	
	<b>Developable Area</b>	5
	<b>Access/Access Road Designation</b>	3
	<b>Slope and Terrain Constraints</b>	3
	<b>Proximity to District's Lowest Elevation</b>	1
	<b>Highway Crossing Required</b>	1
	<b>Proximity to Creek</b>	1
	<b>Structures within 500 feet</b>	3
	<b>Environmental Factors</b>	1
	<b>Inside District Boundary</b>	1
	<b>Requirement for additional property for pump station</b>	3
	<b>Percentage of District Community Downwind</b>	2
<b>Weighting Factor</b>		

### 6.3 CRITERIA SCORING

For all the above criteria, each option was given a 1 through 5 score based on the background material available for each stie option. The scores shown in Table 10 represent the conclusion of this process and the final scores assigned for each of the evaluated sites.



WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

WWTP Siting Analysis

Table 10 Siting Study Matrix

Site Location	Property Size (Minimum of 1.6 Acres)	Developable Area	Access/Access Road Designation	Slope and Terrain Constraints	Proximity to District's Lowest Elevation	Highway Crossing Required	Proximity to Creek	Structures within 500 feet	Environmental Factors	Inside District Boundary	Requirement for additional property for pump station	Percentage of District Community Downwind	Total Score
<b>Weighting Factor</b>		5	3	3	1	1	1	3	1	1	3	2	
Site 2	Yes	5	1	5	2	1	3	2	5	1	1	1	66
Site 4	Yes	5	1	5	2	1	5	5	5	1	1	1	77
Site 14 & 15	Yes	5	5	3	3	5	3	1	5	5	1	3	82
Site 14 & 16	Yes	5	5	4	3	5	3	1	5	5	1	3	85
Site 17	Yes	5	5	3	5	5	2	4	5	1	5	5	104
Site 18	Yes	3	5	1	4	5	1	1	4	5	1	4	66
Site 1	No												
Site 3	No												
Site 5	No												
Site 6	No												
Site 7	No												
Site 8	No												
Site 9	No												
Site 10	No												
Site 11	No												
Site 12	No												
Site 13	No												
Site 15	No												
<b>Legend</b>		1	2	3	4	5							



## **6.4 RECOMMENDED WWTP SITES**

The top 6 properties by ranking are shown in Table 10. The matrix was used to compare relative benefits of each potential WWTP site for comparison purposes. It is recommended that additional research be completed on the top two ranked sites to determine feasibility and costs associated with the purchase of these properties – the combination of sites 14 & 16 and site 17.



# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

## References

### 7.0 REFERENCES

AECOM, Los Olivos Wastewater System Preliminary Engineering Report, January 8, 2013

AECOM, Update to Los Olivos Wastewater System Reliability Engineering Report, November 2, 2016

Berkson Associates Final Draft Plan for Services & Feasibility Study Los Olivos Water Reclamation, October 22, 2016

California Code of Regulations, Title 22 Social Security, Division 4 Environmental Health, Chapter 3 Water Recycling Criteria, Article 5.2 Indirect Potable Reuse: Groundwater Replenishment Subsurface Application.

California Code of Regulations, Title 23 Waters, Division 3 State Water Resources Controls Board and Regional Water Quality Control Boards, Chapter 26 Wastewater Treatment Plant Classification, Operator Certification, and Contract Operator Registration, Article 1 General Provisions.

Metcalf and Eddy, Wastewater Engineering Treatment and Reuse, 2003

Santa Barbara Local Agency Formation Commission website, October 28, 2021,  
[http://sblafco.org/directory/community\\_los\\_olivos.sbc](http://sblafco.org/directory/community_los_olivos.sbc)

Urban Planning Concepts, Inc., Desktop study- Proposed Wastewater Treatment Plant (WWTP) Siting Study, June 6, 2021

US EPA Collection Systems Technology Fact Sheet Sewers, Conventional Gravity, September 2002

US EPA Wastewater Technology Fact Sheet Ultraviolet Disinfection, September 1999



# WASTEWATER COLLECTION AND TREATMENT BASIS OF DESIGN REPORT

Appendix A Los Olivos Loading Study

## Appendix A LOS OLIVOS LOADING STUDY





PHASE 1 - Commercial Zone

LandUse	Data	
	Sum of Ex. WW Flows	Sum of Buildout WW Flow (gpd)
AUTO SALES, REPAIR, STORAGE, CAR WASH, ETC	330	495
CLUBS, LODGE HALLS	192	288
COMMERCIAL (MISC)	1638	10857
COMMERCIAL AND OFFICE CONDOS,PUDS	0	0
HOTELS	5700	5700
MIXED USE-COMMERCIAL/RESIDENTIAL	215	323
OFFICE BUILDINGS, MULTI-STORY	768	1152
OPEN STORAGE, BULK PLANT	0	0
PARKING LOTS	0	0
PARKS	0	0
RESIDENTIAL INCOME, 2-4 UNITS	645	645
RESTAURANTS,BARS	8086	8979
RETAIL STORES, SINGLE STORY	5940	8910
SERVICE STATIONS	215	323
SINGLE FAMILY RESIDENCE	2150	2150
STORE AND OFFICE COMBINATION	1920	2880
VACANT	0	1050
(blank)		
Grand Total	27799	43751

APN	Owner	Situs1	Acreage	LandUse	Phase	Zone	Ex. ADF (gpd)	Buildout ADF (gpd)
135-064-021	RAILWAY JONATA, LLC		0.35	COMMERCIAL (MISC)	1	Commercial	0	0
135-064-024	RAILWAY JONATA, LLC		0.62	COMMERCIAL (MISC)	1	Commercial	0	1050
135-064-026	RAILWAY JONATA, LLC		0.41	COMMERCIAL (MISC)	1	Commercial	0	0
135-064-028	RAILWAY JONATA, LLC		0.79	COMMERCIAL (MISC)	1	Commercial	0	1050
135-073-007	RAILWAY JONATA, LLC	2329 JONATA ST	1.798	COMMERCIAL AND OFFICE CONDOS,PUDS	1	Commercial	0	0
135-073-009	RAILWAY JONATA, LLC	2350 RAILWAY	1.48	RESTAURANTS,BARS	1	Commercial	6,300	6300
135-074-011	RANCHEROS VISITADORES	2355 JONATA ST	0.86	COMMERCIAL (MISC)	1	Commercial	546	819
135-074-012	STAGE STOP PLAZA LLC (CA)	2971 GRAND AVE	0.37	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-074-013	STAGE STOP PLAZA LLC (CA)	2963 GRAND AVE UNIT A	0.32	STORE AND OFFICE COMBINATION	1	Commercial	192	288
135-074-017	STAGE STOP PLAZA		0.367	COMMERCIAL (MISC)	1	Commercial	0	1050
135-074-019	STAGE STOP PLAZA		0.86	COMMERCIAL (MISC)	1	Commercial	0	1050
135-074-021	STAGE STOP PLAZA		0.32	COMMERCIAL (MISC)	1	Commercial	0	1050
135-075-002	LONG CREEK HOLDINGS, LLC	2982 GRAND AVE	0.16	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-075-005	PALMER, FRANK	2445 JONATA ST	0.54	SINGLE FAMILY RESIDENCE	1	Commercial	215	215
135-075-006	TED CHAMBERLIN RANCH, LLC	2435 JONATA ST	0.1	SINGLE FAMILY RESIDENCE	1	Commercial	215	215
135-075-007	GANDOLFO FAM TR 4/22/99	2956 GRAND AVE	0.15	COMMERCIAL (MISC)	1	Commercial	0	1050
135-075-008	COUNTRY GARDENS, LLC	2974 GRAND AVE	0.289	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-075-009	2990 GRAND AVENUE, LLC	2990 GRAND AVE	0.28	OFFICE BUILDINGS, MULTI-STORY	1	Commercial	192	288
135-075-010	LOVE DONALD RJOYCE A TRUSTEES (for) L	2432 RAILWAY AVE	0.16	OPEN STORAGE, BULK PLANT	1	Commercial	0	0
135-091-002	CARHARTT FAMILY TRUST	2939 GRAND AVE	0.08	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-091-003	2935 GRAND AVENUE LLC	2935 GRAND AVE	0.24	STORE AND OFFICE COMBINATION	1	Commercial	192	288
135-091-004	GRAND COURT, LLC	2933 GRAND AVE	0.12	STORE AND OFFICE COMBINATION	1	Commercial	192	288
135-091-005	GRAND COURT, LLC	2923 GRAND AVE	0.22	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-091-006	GRAND COURT, LLC	2905 GRAND AVE	0.08	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-091-007	GRAND COURT, LLC	2901 GRAND AVE	0.08	OFFICE BUILDINGS, MULTI-STORY	1	Commercial	0	0
135-091-008	GRAND COURT, LLC	2901 GRAND AVE	0.09	OFFICE BUILDINGS, MULTI-STORY	1	Commercial	192	288
135-091-009	FREITAS FAMILY TRUST 07/12/2002	2375 ALAMO PINTADO AVE	0.16	RESTAURANTS,BARS	1	Commercial	893	1340
135-091-014	SAARLOOS PROPERTIES, LLC	2363 ALAMO PINTADO AVE	0.16	STORE AND OFFICE COMBINATION	1	Commercial	192	288
135-091-015	SAARLOOS PROPERTIES, LLC	2363 ALAMO PINTADO AVE	0.08	STORE AND OFFICE COMBINATION	1	Commercial	192	288
135-091-016	BARTLETT, MARGARET J TRUSTEE (for) BAI	2948 NOJOQUI AVE	0.79	STORE AND OFFICE COMBINATION	1	Commercial	192	288
135-091-017	GENERAL TELEPHONE COMPANY OF CALIF	2372 JONATA ST	0.14	COMMERCIAL (MISC)	1	Commercial	546	819
135-091-018	DRAMMER, LAURA L FAMILY TRUST 2/19/13	2900 NOJOQUI AVE	0.26	STORE AND OFFICE COMBINATION	1	Commercial	192	288
135-091-019	SAARLOOS PROPERTIES, LLC	2363 ALAMO PINTADO AVE	0.09	PARKING LOTS	1	Commercial	0	0
135-091-020	GRAND COURT, LLC		0.064	COMMERCIAL (MISC)	1	Commercial	546	819
135-091-021	CERNY, JAY E & CORINE D REVOCABLE TRI	2371 ALAMO PINTADO AVE	0.08	SINGLE FAMILY RESIDENCE	1	Commercial	0	0
135-091-022	CERNY, JAY E & CORINE D REVOCABLE TRI	2369 ALAMO PINTADO AVE	0.08	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-091-023	CERNY, JAY E & CORINE D REVOCABLE TRI	2367 ALAMO PINTADO AVE	0.08	STORE AND OFFICE COMBINATION	1	Commercial	0	0
135-092-001	GANDOLFO FAM TR 4/22/99	2948 GRAND AVE	0.24	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-092-002	HARNESS, JOHN TERENCE	2446 JONATA ST	0.16	AUTO SALES, REPAIR, STORAGE, CAR WA:	1	Commercial	330	495
135-092-006	BENSON FAMILY SURVIVOR'S TRUST 12/23/	2900 GRAND AVE	0.13	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-092-011	ROESER FAMILY SURVIVOR'S TRUST 11/2/9	2922 GRAND AVE	0.4	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-092-013	VAUGHAN HOUSING PARTNERSHIP II, LP	2445 ALAMO PINTADO AVE	0.39	OFFICE BUILDINGS, MULTI-STORY	1	Commercial	192	288
135-092-014	LOS OLIVOS COURTYARD, LLC		0.39	STORE AND OFFICE COMBINATION	1	Commercial	192	288
135-092-015	M POWER PROPERTIES, LLC	2906 GRAND AVE	0.2	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-093-003	RAND, GERTRUDE S TRUST 2/28/69	2358 ALAMO PINTADO AVE	0.16	SINGLE FAMILY RESIDENCE	1	Commercial	215	215
135-093-004	SIDEWAYS OUT WEST, LLC	2366 ALAMO PINTADO AVE	0.321	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-093-005	SIDEWAYS OUT WEST, LLC		0.08	COMMERCIAL (MISC)	1	Commercial	0	0
135-093-006	LOS OLIVOS OLIVOS COMMUNITY ORGANIZ	2374 ALAMO PINTADO AVE	0.16	CLUBS, LODGE HALLS	1	Commercial	192	288
135-093-007	POLO PARK FOUNDATION, INC		0.16	PARKS	1	Commercial	0	0
135-093-008	CASANOVA, HELEN	2885 GRAND AVE	0.16	SINGLE FAMILY RESIDENCE	1	Commercial	215	215
135-093-010	JENKINS, JOSIAH F 2009 TRUST 12/22/09	2883 GRAND AVE	0.13	RETAIL STORES, SINGLE STORY	1	Commercial	330	495
135-093-015	MARMORSTEIN, SAM/SHAWNDA REVOCABL	2879 GRAND AVE	0.14	RESTAURANTS,BARS	1	Commercial	893	1340

135-093-017	EPPINK, ERIK J REVOCABLE TRUST 3/18/09	2353 HOLLISTER ST	0.34	RETAIL STORES, SINGLE STORY	1 Commercial	330	495
135-093-019	CLEVELAND-WOESTE FAMILY TRUST 2/13/12	356 ALAMO PINTADO AVE	0.25	SINGLE FAMILY RESIDENCE	1 Commercial	215	215
135-093-020	WALKER ARTHUR/BILLIE C TRUSTEES (for)	2365 HOLLISTER ST	0.17	SINGLE FAMILY RESIDENCE	1 Commercial	215	215
135-093-021	GARLEY, CATHERINE R		0.16	VACANT	1 Commercial	0	1050
135-093-022	ELLISON EDWARD C/WANDA L	2381 HOLLISTER ST	0.16	SINGLE FAMILY RESIDENCE	1 Commercial	215	215
135-093-023	GARLEY MICHAEL N/CATHERINE S	2375 HOLLISTER ST	0.17	SINGLE FAMILY RESIDENCE	1 Commercial	215	215
135-093-024	GRAND HOTEL THE	2861 GRAND AVE	0.32	HOTELS	1 Commercial	2,850	2850
135-094-001	BR LOS OLIVOS PROPERTY, LLC	2890 GRAND AVE	0.33	RETAIL STORES, SINGLE STORY	1 Commercial	330	495
135-094-002	TERRY, NANCY J	2434 ALAMO PINTADO AVE	0.16	RETAIL STORES, SINGLE STORY	1 Commercial	330	495
135-094-003	PALM COTTAGE LLC	2446 ALAMO PINTADO AVE	0.16	MIXED USE-COMMERCIAL/RESIDENTIAL	1 Commercial	215	323
135-094-004	CARROLL WALLACE E/MARIA LUISA TRUST	2881 SAN MARCOS AVE	0.16	RESIDENTIAL INCOME, 2-4 UNITS	1 Commercial	215	215
135-094-005	BAILEY LTD, LLC.	2865 SAN MARCOS AVE	0.32	SINGLE FAMILY RESIDENCE	1 Commercial	215	215
135-094-006	GRAND HOTEL THE	2435 HOLLISTER ST	0.15	HOTELS	1 Commercial	0	0
135-094-010	GRAND HOTEL THE	2860 GRAND AVE	0.48	HOTELS	1 Commercial	2,850	2850
135-094-012	BAILEY LTD	2880 GRAND AVE	0.16	RETAIL STORES, SINGLE STORY	1 Commercial	330	495
135-102-003	LOS OLIVOS INVESTMENTS, LLC	2902 SAN MARCOS AVE UN	0.25	STORE AND OFFICE COMBINATION	1 Commercial	192	288
135-102-009	MANZANILLA BUILDING LLC	2928 SAN MARCOS AVE UN	0.24	STORE AND OFFICE COMBINATION	1 Commercial	192	288
135-102-010	BARNSTORM, LLC		0.16	COMMERCIAL (MISC)	1 Commercial	0	1050
135-102-011	JRJ ASSOCIATES, LLC	2948 SAN MARCOS AVE UN	0.33	OFFICE BUILDINGS, MULTI-STORY	1 Commercial	192	288
135-133-021	BAILEY LTD LLC		0.2	SERVICE STATIONS	1 Commercial	215	323
135-133-026	RICHOLSON FAMILY TRUST 11/25/2014	2896 SAN MARCOS AVE	0.16	RETAIL STORES, SINGLE STORY	1 Commercial	330	495
135-133-027	BAILEY LTD	2874 SAN MARCOS AVE	0.39	SINGLE FAMILY RESIDENCE	1 Commercial	215	215
135-133-034	COURSON FAMILY TRUST 06/02/1999	2472 ALAMO PINTADO AVE	0.16	RESIDENTIAL INCOME, 2-4 UNITS	1 Commercial	215	215
135-133-035	COURSON FAMILY TRUST 06/02/19999	2460 ALAMO PINTADO AVE	0.17	RESIDENTIAL INCOME, 2-4 UNITS	1 Commercial	215	215
135-133-047	BAILEY LTD LLC		0.28	COMMERCIAL (MISC)	1 Commercial	0	1050

Phase II - Small Lot

<b>Row Labels</b>	<b>Sum of Ex. ADF (gpd)</b>	<b>Sum of Buildout ADF (gpd)</b>
SINGLE FAMILY RESIDENCE	10535	10535
VACANT	0	215
<b>Grand Total</b>	<b>10535</b>	<b>10750</b>

APN	Owner	Situs1	Situs2	Acreage	LandUse	MCity	MZip	MState	YearBuilt	Bedrooms	Bathrooms	Ex. ADF (gpd)	Buildout ADF	
													(gpd)	(gpd)
135-101-018	ADAMS FAMILY TRUST 10/17/06	2989 ALTA ST	LOS OLIVOS, CA 93441	0.17	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1960	2	1.75	215	215	215
135-101-017	HUTCHESON, THOMAS E REVOCABLE TRUST 10/9/15	2981 ALTA ST	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1976	2	1	215	215	215
135-101-007	CHAPMAN, THERON T JR LIVING TRUST 7/26/17	2975 ALTA ST	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1963	3	1.75	215	215	215
135-101-009	DRAMMER, MATTHEW A	2481 JONATA ST	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1967	3	1.75	215	215	215
135-101-015	BEYER, JENNIFER E	2467 JONATA ST	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1986	3	2	215	215	215
135-101-019	MOSELEY, MELISSA A TRUST 12/3/12	2980 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1977	3	2	215	215	215
135-101-020	GARDEN, TEJAY VAB	2984 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.21	SINGLE FAMILY RESIDENCE	BASALT	81621	CO	1979	3	3	215	215	215
135-101-014	LUNDE, SUSAN M	2964 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1942	1	1	215	215	215
135-102-007	RECTOR, WARDENS AND VESTRYMEN OF ST MARKS IN THE VALL	2949 ALTA ST	LOS OLIVOS, CA 93441	0.24	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1999	4	2	215	215	215
135-102-008	HOLLINGSWORTH, JEANNE E	2945 ALTA ST	LOS OLIVOS, CA 93441	0.24	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1984	3	2	215	215	215
135-102-013	NASH, MARY BARBER	2935 ALTA ST	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	NEWPORT	92663	CA	1991	2	3	215	215	215
135-102-012	LJ, ALEXANDER KIP	2905 ALTA ST	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS ANGEI	90019	CA	1984	4	2	215	215	215
135-102-014	DEFRANCO, CASEY REVOCABLE LIVING TRUST 5/16/05	2489 ALAMO PINTADO AVE	LOS OLIVOS, CA 93463	0.17	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1949	2	1	215	215	215
135-133-028	MERLO, TAYLOR FRANCIS	2895 ALTA ST	LOS OLIVOS, CA 93441	0.24	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1981	4	2	215	215	215
135-133-029	GREEN REVOCABLE LIVING TRUST 12/29/1983	2889 ALTA ST	LOS OLIVOS, CA 93441	0.24	SINGLE FAMILY RESIDENCE	PHOENIX	85016	AZ	1997	1	1	215	215	215
135-133-030	MELVILLE, CHAD E	2877 ALTA ST	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	SOLVANG	93464	CA	1978	3	1.75	215	215	215
135-133-031	DEWETT FAMILY SURVIVOR'S TRUST			0.16	VACANT	LOS OLIVO	93441	CA		0	0	0	215	215
135-133-022	DEWETT FAMILY SURVIVOR'S TRUST	2865 ALTA ST	LOS OLIVOS, CA 93441	0.26	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1986	3	3	215	215	215
135-133-054	HUEBEL ROBERT L/BARBARA L	2811 ALTA ST	LOS OLIVOS, CA 93441	0.45	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA		0	0	215	215	215
135-133-055	CHAMBERLIN, SARAH H SEPARATE PROPERTY TRUST 8/9/18	2800 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.28	SINGLE FAMILY RESIDENCE	LOS OLIVO	93444	CA		0	0	215	215	215
135-133-016	BURKE, CATHERINE E 2017 TRUST 11/20/17	2810 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	GOLETA	93117	CA	1977	2	2	215	215	215
135-133-033	MUNN MURDOC CAMPBELL III/JOAN	2822 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1976	2	1	215	215	215
135-133-053	NEARN, ANNALISA C	2823 ALTA ST	LOS OLIVOS, CA 93441	0.34	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA		0	0	215	215	215
135-133-032	TIFFANY, LLOYD & CHRIS TRUST 6/17/15	2828 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	SOLVANG	93463	CA	1976	2	1	215	215	215
135-133-051	FORDYCE, BIBIANA B	2830 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.17	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA		0	0	215	215	215
135-133-052	MCDONELL, JILL P	2831 ALTA ST	LOS OLIVOS, CA 93441	0.17	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1980	3	3	215	215	215
135-133-013	FURLOW, ADAM L	2835 ALTA ST	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1976	3	1.75	215	215	215
135-133-049	MESIKEP, MARGARET E	2845 ALTA ST	LOS OLIVOS, CA 93441	0.17	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1980	3	2.5	215	215	215
135-133-024	BROWNELL, SOPHIA P TESTAMENTARY TRUST	2855 ALTA ST	LOS OLIVOS, CA 93441	0.27	SINGLE FAMILY RESIDENCE	SANTA BAI	93109	CA	1976	3	1.75	215	215	215
135-133-048	CARROLL, BRIAN L	2846 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.17	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1975	2	1	215	215	215
135-133-050	SULAK FAMILY TRUST 4/2015	2834 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.17	SINGLE FAMILY RESIDENCE	LOS ANGEI	90066	CA	1975	3	2	215	215	215
135-132-015	WILSON, DAVID L III	2800 GRAND AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS ANGEI	90068	CA	1965	3	2.5	215	215	215
135-132-021	WILKERSON, ROBERT N LIV TR 10/17/91	2425 OLIVET AVE	LOS OLIVOS, CA 93441	0.32	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1982	4	3	215	215	215
135-132-020	SANCHEZ, MARK CLINTON REVOCABLE TRUST DDT 5/27/98	2823 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	SOLVANG	93464	CA	1973	4	2.75	215	215	215
135-132-012	SULAK FAMILY TRUST	2829 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1973	4	2.5	215	215	215
135-132-013	LYON GREGORY D & VICKY L TRUSTEES (for) LYON GREGORY D &	2831 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1972	3	2.5	215	215	215
135-132-001	WRENCH LIVING TRUST 11/5/13	2845 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.47	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1910	5	2	215	215	215
135-132-019	CARLSON FAMILY TRUST 5/6/08	2848 GRAND AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	SANTA YNI	93460	CA	1945	4	3	215	215	215
135-132-018	PECOT, SHELLY JENKINS	2834 GRAND AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	NEW ORLE	70118	LA	1928	2	1	215	215	215
135-132-016	MONTEITH, STEWART & JANICE REVOCABLE TRUST 2/14/19	2832 GRAND AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	CONROE	77385	TX	1967	3	2	215	215	215
135-132-007	WILKERSON, ROBERT REV LIV TR 10/17/91	2830 GRAND AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1965	3	1.5	215	215	215
135-132-009	BEYER, JENNIFER E	2828 GRAND AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1963	3	1	215	215	215
135-132-010	MARKS LARISA A	2822 GRAND AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	MONTERE	93940	CA	1963	3	1.75	215	215	215
135-132-014	PEDERSEN, DAVID C	2810 GRAND AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1968	3	2	215	215	215
135-122-010	RAMIREZ, STEVEN	2851 GRAND AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	GOLETA	93117	CA	1972	3	2.5	215	215	215
135-122-012	WILKERSON, ROBERT REV LIV TR 10/17/91	2847 GRAND AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1971	3	2.25	215	215	215
135-122-033	PACKHAM, SCOTT W & ROXANNE H TRUST 4/8/97	2839 GRAND AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	CAMARILL	93010	CA	1971	3	2.5	215	215	215
135-122-035	SAVAGE FAMILY TRUST 12/18/07	2833 GRAND AVE	LOS OLIVOS, CA 93441	0.31	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1989	3	4	215	215	215
135-122-028	CAPONE, MERYL	2825 GRAND AVE	LOS OLIVOS, CA 93441	0.14	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1977	3	2	215	215	215
135-122-030	CARRIERE KATHLEEN G	2815 GRAND AVE	LOS OLIVOS, CA 93441	0.41	SINGLE FAMILY RESIDENCE	LOS OLIVO	93441	CA	1979	3	2.5	215	215	215

Phase III - Sphere of Influence

<b>Row Labels</b>	<b>Sum of EX. ADF (gpd)</b>	<b>Sum of Buildout ADF (gpd)</b>
CHURCHES, RECTORY	552	552
INSTITUTIONAL (MISC)	0	96
MISCELLANEOUS	0	0
RANCHO ESTATES (RURAL HOME SITES)	6550	6550
RIVERS AND LAKES	0	0
SCHOOLS	943	943
SINGLE FAMILY RESIDENCE	49137	49137
VACANT	0	4634
WATER RIGHTS,PUMPS	0	0
PARKS/Neighborhood-Comm/restaurant	893	1340
<b>Grand Total</b>	<b>58074</b>	<b>63251</b>

APN	LAYER	Owner	Situs1	Situs2	Acreege	LandUse	EX. ADF (gpd)	Buildout ADF (gpd)
135-064-009	Ground	LAKIND, SHARIE	2956 STEELE ST	LOS OLIVOS, CA 93441	0.46	SINGLE FAMILY RESIDENCE	215	215
135-064-013	Ground	SPECEIRO, SANTIAGO	2980 STEELE ST	LOS OLIVOS, CA 93441	0.46	SINGLE FAMILY RESIDENCE	215	215
135-064-014	Ground	ROSS TRUST 7/20/12	2215 JONATA ST	LOS OLIVOS, CA 93441	0.46	SINGLE FAMILY RESIDENCE	215	215
135-064-015	Ground	TIPOLT, ALEXANDER J & JULIA G REVOCABLE TRUST 5-5-03	2221 JONATA ST	LOS OLIVOS, CA 93441	0.46	SINGLE FAMILY RESIDENCE	215	215
135-064-016	Ground	ALTAVILLA, ROBERT TRUST 9/7/2005	2227 JONATA ST	LOS OLIVOS, CA 93441	0.55	SINGLE FAMILY RESIDENCE	215	215
135-064-017	Ground	THIELST BRIAN W/TERRI L	2231 JONATA ST	LOS OLIVOS, CA 93441	0.73	SINGLE FAMILY RESIDENCE	215	215
135-064-018	Ground	ANDERSON, KENNETH A/ALLISON J	2235 JONATA ST	LOS OLIVOS, CA 93441	0.52	VACANT	0	215
135-064-019	Ground	KOTECKI, THOMAS T & CAROL L REVOCABLE INTERVIVOS TRUST 06/05/2002	2245 JONATA ST	LOS OLIVOS, CA 93441	0.63	SINGLE FAMILY RESIDENCE	215	215
135-081-005	Ground	HARRIS, JAMES S	2225 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.32	SINGLE FAMILY RESIDENCE	215	215
135-081-006	Ground	HAYEK, MICHAEL	2245 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.31	SINGLE FAMILY RESIDENCE	215	215
135-081-007	Ground	MCDANIEL, MICHAEL S	2902 STEELE ST	LOS OLIVOS, CA 93441	0.32	SINGLE FAMILY RESIDENCE	215	215
135-081-008	Ground	LOPRESTI, CARA MIA E	2213 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.32	SINGLE FAMILY RESIDENCE	215	215
135-081-010	Ground	BROWN, JUSTIN M	2949 GAVIOTA ST	LOS OLIVOS, CA 93441	0.62	SINGLE FAMILY RESIDENCE	215	215
135-081-011	Ground	HANSON FAMILY TRUST	2946 STEELE ST	LOS OLIVOS, CA 93441	0.31	SINGLE FAMILY RESIDENCE	215	215
135-081-012	Ground	PALAIMA, JAMES P	2214 JONATA ST	LOS OLIVOS, CA 93441	0.32	SINGLE FAMILY RESIDENCE	215	215
135-082-015	Ground	VILLA STARGAZE TRUST	2944 GAVIOTA ST	LOS OLIVOS, CA 93441	1.38	RANCHO ESTATES (RURAL HOME SITES)	284	284
135-082-017	Ground	STARGAZE, VILLA TRUST	2255 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.3	SINGLE FAMILY RESIDENCE	215	215
135-082-018	Ground	GOTT CHARLES R/PATRICIA A TRUSTEES (for) GOTT CHARLES/PATRICIA TRUST	2267 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.24	SINGLE FAMILY RESIDENCE	215	215
135-082-019	Ground	LUNDE, RITAHELEN D TRUST	2271 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.24	SINGLE FAMILY RESIDENCE	215	215
135-082-020	Ground	BEREAN BAPTIST CHURCH OF LOS OLIVOS			0.32	VACANT	0	215
135-082-021	Ground	BEREAN BAPTIST CHURCH OF LOS OLIVOS	2293 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.26	CHURCHES, RECTORY	96	96
135-082-022	Ground	BEREAN BAPTIST CHURCH OF LOS OLIVOS			0.62	INSTITUTIONAL (MISC)	0	96
135-082-024	Ground	ST MARKS IN-THE-VALLEY EPISCOPAL CHURCH	2901 NOJOQUI AVE	LOS OLIVOS, CA 93441	2.64	CHURCHES, RECTORY	456	456
135-084-002	Ground	NATION FAMILY TRUST 2/15/19	2204 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.44	SINGLE FAMILY RESIDENCE	215	215
135-084-004	Ground	KEYKO, R TRUST 9/29/15	2210 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.29	SINGLE FAMILY RESIDENCE	215	215
135-084-006	Ground	PUCHLI STEPHEN/SHARON Y	2224 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.28	SINGLE FAMILY RESIDENCE	215	215
135-084-007	Ground	FLINT, JUSTIN	2230 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.28	SINGLE FAMILY RESIDENCE	215	215
135-085-009	Ground	MCKILLOP, B W TRUST 8/6/08	2870 GAVIOTA ST	LOS OLIVOS, CA 93441	0.37	SINGLE FAMILY RESIDENCE	215	215
135-085-011	Ground	SEGALE, ANDREW W	2260 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.31	SINGLE FAMILY RESIDENCE	215	215
135-085-014	Ground	DUNN TRUST 11/18/02	2268 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.34	SINGLE FAMILY RESIDENCE	215	215
135-085-016	Ground	RAMIREZ, JUSTIN A	2276 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.34	SINGLE FAMILY RESIDENCE	215	215
135-085-020	Ground	OLIVERA FAMILY TRUST 3/15/95	2867 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.43	SINGLE FAMILY RESIDENCE	215	215
135-085-021	Ground	NICHOLS FAMILY REVOCABLE LIVING TRUST	2851 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.43	SINGLE FAMILY RESIDENCE	215	215
135-085-022	Ground	MUELLER FAMILY TRUST A 8/14/95	2859 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.42	SINGLE FAMILY RESIDENCE	215	215
135-085-023	Ground	BORROEL, ALEXA TRUST 2/22/19	2889 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.32	SINGLE FAMILY RESIDENCE	215	215
135-086-001	Ground	SANTA YNEZ RIVER & WATER CONS DIST	2320 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.16	WATER RIGHTS,PUMPS	0	0
135-086-002	Ground	SANTA YNEZ RIVER & WATER CONS DIST			0.16	VACANT	0	215
135-086-007	Ground	CRUTCHER, DANIEL L	2866 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.4	SINGLE FAMILY RESIDENCE	215	215
135-086-009	Ground	MILLARD, WILLIAM S/CAROL S TRUSTEES (for) MILLARD, SCOTT/CAROL LIV TR 5/			0.87	RIVERS AND LAKES	0	0
135-086-010	Ground	VICKERS, JOHN A	2352 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	215	215
135-086-013	Ground	SUTCLIFFE TIMOTHY L/BARBARA OSBORNE	2348 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	215	215
135-086-014	Ground	MUNOZ-FLORES, DIEGO SEPARATE PROPERTY TRUST 4/8/2012	2865 NOJOQUI AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	215	215
135-086-015	Ground	GRIDER FAMILY TRUST 9/27/16	2875 NOJOQUI AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	215	215
135-086-016	Ground	ROGERS IRA M/PATRICIA L TRUSTEES (for) ROGERS REV TR 7-18-91	2330 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.48	SINGLE FAMILY RESIDENCE	215	215
135-086-017	Ground	WILLEE, DIANE TRUST	2346 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.16	SINGLE FAMILY RESIDENCE	215	215
135-103-003	Ground	MIRELES, ROBERT JR	2978 ALTA ST	LOS OLIVOS, CA 93441	0.78	SINGLE FAMILY RESIDENCE	215	215
135-103-004	Ground	FKT 2014 FAMILY TRUST 3/26/02	2948 ALTA ST	LOS OLIVOS, CA 93441	0.75	SINGLE FAMILY RESIDENCE	215	215
135-103-005	Ground	MORRISON, GLENN SCOTT	2938 ALTA ST	LOS OLIVOS, CA 93441	0.75	SINGLE FAMILY RESIDENCE	215	215
135-103-006	Ground	MCCELLELLAN, CYNTHIA SUE REVOCABLE TRUST 2/7/05	2545 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	1.03	SINGLE FAMILY RESIDENCE	284	284
135-110-009	Ground	GOTT CHARLES R/PATRICIA A TRUSTEES (for) GOTT CHARLES/PATRICIA TR	2270 OLIVET AVE	LOS OLIVOS, CA 93441	1	SINGLE FAMILY RESIDENCE	284	284
135-110-010	Ground	LONDON, GLENN S	2280 OLIVET AVE	LOS OLIVOS, CA 93441	1	SINGLE FAMILY RESIDENCE	284	284
135-110-014	Ground	STEINWACHS, KAREN E REVOCABLE TRUST	2625 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	3.48	SINGLE FAMILY RESIDENCE	284	284
135-110-017	Ground	BRADLEY, JULIE CARMAN LIVING TRUST 3/6/15	2677 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	1.94	RANCHO ESTATES (RURAL HOME SITES)	284	284
135-110-018	Ground	ESCOBAR, STEVEN	2651 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	2.5	RANCHO ESTATES (RURAL HOME SITES)	284	284
135-110-020	Ground	HOUGO, VINCENT C	2721 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	1.46	RANCHO ESTATES (RURAL HOME SITES)	284	284
135-110-023	Ground	GOTT CHARLES R/PATRICIA A TRUSTEES (for) GOTT CHARLES/PATRICIA TRUST			1.47	VACANT	0	284
135-110-024	Ground	GOTT CHARLES R/PATRICIA A TRUSTEES (for) GOTT CHARLES/PATRICIA TRUST			1.48	VACANT	0	284
135-110-025	Ground	GOTT CHARLES R/PATRICIA TRUSTEES (for) GOTT CHARLES R & PATRICIA TRUST			1.47	VACANT	0	284
135-110-026	Ground	RANEY, JAMIE F 2009 REVOCABLE TRUST	2695 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.94	RANCHO ESTATES (RURAL HOME SITES)	215	215

135-110-027	Ground	YACOB, KERIM	2697 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	1 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-110-028	Ground	LOS OLIVOS CAMP, LLC	2611 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	4.17 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-121-004	Ground	FOX, BLAIR D	2255 OLIVET AVE	LOS OLIVOS, CA 93441	0.44 SINGLE FAMILY RESIDENCE	215	215
135-121-007	Ground	MCKENZIE, TERI TRUST 3/15/18	2840 GAVIOTA ST	LOS OLIVOS, CA 93441	0.49 SINGLE FAMILY RESIDENCE	215	215
135-121-009	Ground	BRUMFIEL, JESSICA	2265 OLIVET AVE	LOS OLIVOS, CA 93441	0.46 SINGLE FAMILY RESIDENCE	215	215
135-121-011	Ground	FORDYCE, MICHAEL J TRUST 4/16/15	2275 OLIVET AVE	LOS OLIVOS, CA 93441	0.45 SINGLE FAMILY RESIDENCE	215	215
135-121-013	Ground	LOUDON, MATTHEW & ANN REVOCABLE TRUST	2853 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.51 SINGLE FAMILY RESIDENCE	215	215
135-121-014	Ground	SWANITZ FAMILY TRUST 12/27/1993	2849 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.51 SINGLE FAMILY RESIDENCE	215	215
135-121-015	Ground	STRICKER, NATHAN JOHN	2847 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.51 SINGLE FAMILY RESIDENCE	215	215
135-121-016	Ground	WEAVER, DAVID/BARBARA LIVING TRUST 12/20/00	2815 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.45 SINGLE FAMILY RESIDENCE	215	215
135-122-008	Ground	RAMIREZ, ALLEN C	2856 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	1.06 SINGLE FAMILY RESIDENCE	284	284
135-122-009	Ground	JONES, KATHLEEN W	2852 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	1.06 SINGLE FAMILY RESIDENCE	284	284
135-122-018	Ground	SEGALE, PHILIP A	2339 OLIVET AVE	LOS OLIVOS, CA 93441	0.55 SINGLE FAMILY RESIDENCE	215	215
135-122-023	Ground	CLAUSEN, BRIAN F	2351 OLIVET AVE	LOS OLIVOS, CA 93441	1.11 SINGLE FAMILY RESIDENCE	284	284
135-122-024	Ground	BRADY FAMILY TRUST 11/05/2012	2345 OLIVET AVE	LOS OLIVOS, CA 93441	0.54 SINGLE FAMILY RESIDENCE	215	215
135-122-025	Ground	BENEKOS, PETROS	2806 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	1.06 SINGLE FAMILY RESIDENCE	284	284
135-122-031	Ground	COUNTY OF SANTA BARBARA			0.28 MISCELLANEOUS	0	0
135-122-032	Ground	SAHM HOWARD S/RUTH E TRUSTEES (for) SAHM HOWARD S/RUTH E REV TR 2-7	2380 HOLLISTER ST	LOS OLIVOS, CA 93441	2.31 SINGLE FAMILY RESIDENCE	284	284
135-134-001	Ground	GILL, BROOKS A SEPARATE PROPERTY TRUST 6/7/93	2876 ALTA ST	LOS OLIVOS, CA 93441	0.83 SINGLE FAMILY RESIDENCE	215	215
135-134-003	Ground	NORMAN, TODD & REBECCA FAMILY TRUST 10/13/16	2844 ALTA ST	LOS OLIVOS, CA 93441	0.33 SINGLE FAMILY RESIDENCE	215	215
135-134-008	Ground	BENEFIEL, BETH REVOCABLE TRUST	2816 ALTA ST	LOS OLIVOS, CA 93441	0.25 SINGLE FAMILY RESIDENCE	215	215
135-134-016	Ground	OWENS, CHYREL FRANCES TRUST 8/11/05	2830 ALTA ST	LOS OLIVOS, CA 93441	0.41 SINGLE FAMILY RESIDENCE	215	215
135-134-017	Ground	WHALEN, SUSAN M	2806 ALTA ST	LOS OLIVOS, CA 93441	0.43 SINGLE FAMILY RESIDENCE	215	215
135-134-019	Ground	HOOVER, DARRELL GLENN TRUST	2866 ALTA ST	LOS OLIVOS, CA 93441	0.537 SINGLE FAMILY RESIDENCE	215	215
135-134-020	Ground	FARINPOUR, ARYA TRUST 1/23/06	2856 ALTA ST	LOS OLIVOS, CA 93441	0.331 SINGLE FAMILY RESIDENCE	215	215
135-140-011	Ground	YOUNG, R & L JR FAMILY TRUST 8/30/10	2338 OLIVET AVE	LOS OLIVOS, CA 93441	0.52 SINGLE FAMILY RESIDENCE	215	215
135-140-018	Ground	CARRICABURU JAMES DONALD	2798 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	1.06 SINGLE FAMILY RESIDENCE	284	284
135-140-020	Ground	POTTER, MICHAEL/JULIE FAMILY TRUST 6/15/12	2344 OLIVET AVE	LOS OLIVOS, CA 93441	0.52 SINGLE FAMILY RESIDENCE	215	215
135-140-025	Ground	STABLEFORD, PAMELA K 2002 TRUST 4/2/02	2354 OLIVET AVE	LOS OLIVOS, CA 93441	0.84 SINGLE FAMILY RESIDENCE	215	215
135-140-026	Ground	LOCEY THEODORE R/KATHLEEN A	2352 OLIVET AVE	LOS OLIVOS, CA 93441	0.64 SINGLE FAMILY RESIDENCE	215	215
135-140-028	Ground	MIRARCHI WILLIAM VINCENT/LOIS ANN	2756 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.91 SINGLE FAMILY RESIDENCE	215	215
135-140-029	Ground	GOLDEN, ANTHONY	2335 HENNING DR	LOS OLIVOS, CA 93441	0.47 SINGLE FAMILY RESIDENCE	215	215
135-140-031	Ground	ANDREWS, NICHOLAS S REVOCABLE TRUST 4/11/14	2765 GRAND AVE	LOS OLIVOS, CA 93441	0.52 SINGLE FAMILY RESIDENCE	215	215
135-140-033	Ground	BRUHN FAMILY TRUST 2/22/10	2795 GRAND AVE	LOS OLIVOS, CA 93441	0.67 SINGLE FAMILY RESIDENCE	215	215
135-140-034	Ground	SCOTT FAMILY TRUST	2785 GRAND AVE	LOS OLIVOS, CA 93441	0.52 SINGLE FAMILY RESIDENCE	215	215
135-140-037	Ground	MROZOWSKI, VICKI BUDD LIVING TRUST 8/31/13	2345 HENNING DR	LOS OLIVOS, CA 93441	0.46 SINGLE FAMILY RESIDENCE	215	215
135-140-043	Ground	MALY, NICHOLAS	2353 HENNING DR	LOS OLIVOS, CA 93441	1.02 SINGLE FAMILY RESIDENCE	284	284
135-140-044	Ground	711 LOS OLIVOS, LLC	2755 GRAND AVE	LOS OLIVOS, CA 93441	1.14 VACANT	0	284
135-151-002	Ground	DUVAL, TREY	2790 GRAND AVE	LOS OLIVOS, CA 93441	0.46 SINGLE FAMILY RESIDENCE	215	215
135-151-003	Ground	CEDER VICTOR/DEBBIE L	2430 OLIVET AVE	LOS OLIVOS, CA 93441	0.46 SINGLE FAMILY RESIDENCE	215	215
135-151-004	Ground	DESHAYES, ROBIN LEE LIVING TRUST 11/25/2014	2440 OLIVET AVE	LOS OLIVOS, CA 93441	0.46 SINGLE FAMILY RESIDENCE	215	215
135-151-007	Ground	ANDERSON, M&T TRUST 1/28/10	2425 LUCCA AVE	LOS OLIVOS, CA 93441	0.46 SINGLE FAMILY RESIDENCE	215	215
135-151-008	Ground	MILLER FAMILY TRUST 5/4/07	2445 LUCCA AVE	LOS OLIVOS, CA 93441	0.46 SINGLE FAMILY RESIDENCE	215	215
135-151-009	Ground	KARTEN, VICKIE & STUART LIVING TRUST	2447 LUCCA AVE	LOS OLIVOS, CA 93441	0.46 SINGLE FAMILY RESIDENCE	215	215
135-153-004	Ground	GILL, BROOKS A SEPARATE PROPERTY TRUST DTD 6/7/93	2455 LUCCA AVE	LOS OLIVOS, CA 93441	0.25 SINGLE FAMILY RESIDENCE	215	215
135-153-005	Ground	CARROLL, BRIAN L	2495 LUCCA AVE	LOS OLIVOS, CA 93441	0.25 SINGLE FAMILY RESIDENCE	215	215
135-153-006	Ground	JOUGHIN FAMILY TRUST 4/4/05	2490 LUCCA AVE	LOS OLIVOS, CA 93441	0.26 SINGLE FAMILY RESIDENCE	215	215
135-153-011	Ground	TRENT, STEPHEN M	2770 ALTA ST	LOS OLIVOS, CA 93441	0.65 SINGLE FAMILY RESIDENCE	215	215
135-153-012	Ground	PATARAK FAMILY TRUST 8/12/16	2760 LUCCA AVE	LOS OLIVOS, CA 93441	0.62 SINGLE FAMILY RESIDENCE	215	215
135-153-014	Ground	WITT, THOMAS KELLEY	2779 ALTA ST	LOS OLIVOS, CA 93441	0.5 SINGLE FAMILY RESIDENCE	215	215
135-153-017	Ground	FAYRAM, THOMAS & KATHLEEN FAMILY TRUST 2/21/19	2775 ALTA ST	LOS OLIVOS, CA 93441	0.46 SINGLE FAMILY RESIDENCE	215	215
135-153-018	Ground	NOONAN MICHAEL B/BARBARA J	2750 LUCCA AVE	LOS OLIVOS, CA 93441	0.46 SINGLE FAMILY RESIDENCE	215	215
135-153-023	Ground	ANDERSEN KENNETH ANDREW/ALLISON JANE	2780 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.808 SINGLE FAMILY RESIDENCE	215	215
135-153-024	Ground	LAMBERT, FREDERICK E & ROBAN L REVOCABLE LIVING TRUST 7/19/05	2785 ALTA ST	LOS OLIVOS, CA 93441	0.62 SINGLE FAMILY RESIDENCE	215	215
135-153-025	Ground	ARMENTA, MANUEL R II	2780 ALTA ST	LOS OLIVOS, CA 93441	0.76 SINGLE FAMILY RESIDENCE	215	215
135-161-006	Ground	MARSHALL, DAVID M & CLEARWATER, SUSAN CAROL REVOCABLE LIVING TRUST	2745 GRAND AVE	LOS OLIVOS, CA 93441	1.9 SINGLE FAMILY RESIDENCE	284	284
135-161-007	Ground	BENSON SURVIVOR'S TRUST 12/23/15	2723 GRAND AVE	LOS OLIVOS, CA 93441	1.57 SINGLE FAMILY RESIDENCE	284	284
135-161-008	Ground	SPURBECK, GERALD & KATHERINE FAMILY TRUST	2715 GRAND AVE	LOS OLIVOS, CA 93441	1.57 SINGLE FAMILY RESIDENCE	284	284
135-161-010	Ground	FRANSON ARTHUR A/JANICE	2700 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	1.06 SINGLE FAMILY RESIDENCE	284	284
135-161-011	Ground	PARKS, GREG	2754 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.45 SINGLE FAMILY RESIDENCE	215	215



135-161-012	Ground	RASMUSSEN, L S TRUST 7/28/04	2320 HENNING DR	LOS OLIVOS, CA 93441	0.46 SINGLE FAMILY RESIDENCE	215	215
135-161-014	Ground	TAFELSKI, MARK CHARLES & RETA AGNETE JOINT LIVING TRUST 1/20/09	2332 HENNING DR	LOS OLIVOS, CA 93441	0.59 SINGLE FAMILY RESIDENCE	215	215
135-161-015	Ground	ALBERTS, DAVID L	2348 HENNING DR	LOS OLIVOS, CA 93441	0.76 SINGLE FAMILY RESIDENCE	215	215
135-161-016	Ground	MIRARCHI WILLIAM/LOIS			0.27 VACANT	0	215
135-161-017	Ground	WITT, ROBERT & KELLEY FAMILY TRUST SCH C 01/21/1997	2720 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.53 SINGLE FAMILY RESIDENCE	215	215
135-161-018	Ground	WELLS FAMILY TRUST 5/7/12	2724 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.67 SINGLE FAMILY RESIDENCE	215	215
135-162-005	Ground	BRAFF, STEVEN	2440 LUCCA AVE	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-162-006	Ground	ENDY, THOMAS D	2740 GRAND AVE	LOS OLIVOS, CA 93441	0.18 SINGLE FAMILY RESIDENCE	215	215
135-162-008	Ground	BROYLES, LINDA R	2718 GRAND AVE	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-162-010	Ground	NELSON, LYNNE A	2729 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.18 SINGLE FAMILY RESIDENCE	215	215
135-162-011	Ground	CUNNINGHAM FAMILY TRUST	2727 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-162-012	Ground	HOLLINGSWORTH, JEANNE E	2725 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-162-013	Ground	RAKUSIN, LISA L REVOCABLE TRUST 8/12/15	2719 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-162-014	Ground	PURKAYASTHA, MANIARI	2730 GRAND AVE	LOS OLIVOS, CA 93441	0.18 SINGLE FAMILY RESIDENCE	215	215
135-162-015	Ground	PAASKE, RICHARD & IRENE LIVING TRUST 2/17/02	2728 GRAND AVE	LOS OLIVOS, CA 93441	0.18 SINGLE FAMILY RESIDENCE	215	215
135-162-016	Ground	RIO TRUST 4/8/15	2726 GRAND AVE	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-162-019	Ground	CHAPMAN, THERON T JR LIVING TRUST 7/26/17	2703 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-162-021	Ground	OKUDA-BATTAGLINI, LISA	2716 GRAND AVE	LOS OLIVOS, CA 93441	0.18 SINGLE FAMILY RESIDENCE	215	215
135-162-022	Ground	ANDREWS, ESTHER R LIVING TRUST 2/5/09	2712 GRAND AVE	LOS OLIVOS, CA 93441	0.35 SINGLE FAMILY RESIDENCE	215	215
135-162-023	Ground	BERNSTEIN STEVE	2717 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-162-024	Ground	PAPPAS, KELLI A	2713 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-171-003	Ground	MAZZA, MATTHEW S	2485 PARK ST	LOS OLIVOS, CA 93441	0.52 SINGLE FAMILY RESIDENCE	215	215
135-171-005	Ground	SEPULVEDA JOAQUIN/LAVERN B TRUSTEES (for) SEPULVEDA JOAQUIN/LAVERN I	2455 PARK ST	LOS OLIVOS, CA 93441	0.31 SINGLE FAMILY RESIDENCE	215	215
135-171-006	Ground	LOCKWOOD KAREN	2483 PARK ST	LOS OLIVOS, CA 93441	0.23 SINGLE FAMILY RESIDENCE	215	215
135-171-008	Ground	PENHALLEGON, EMILY HORMUTH	2740 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-171-009	Ground	GREENOUGH, ANN ELIZABETH REVOCABLE TRUST 2/22/18	2734 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.18 SINGLE FAMILY RESIDENCE	215	215
135-171-010	Ground	RENNEY, GLORIA L 1996 REVOCABLE TRUST 12/3/96	2730 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-171-011	Ground	VAN HIRTUM, MARK	2731 STOW ST	LOS OLIVOS, CA 93441	0.16 SINGLE FAMILY RESIDENCE	215	215
135-171-012	Ground	HEYDEN, MARY H TRUST 1/5/88	2751 STOW ST	LOS OLIVOS, CA 93441	0.18 SINGLE FAMILY RESIDENCE	215	215
135-171-013	Ground	SUREY FAMILY TRUST 8/16/14	2747 STOW ST	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-171-014	Ground	JUAREZ THOMAS G/BRENDA J	2743 STOW ST	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-171-015	Ground	BENNETT, JOHN A	2739 STOW ST	LOS OLIVOS, CA 93441	0.18 SINGLE FAMILY RESIDENCE	215	215
135-171-016	Ground	LAVIGNE, PATRICIA M TRUST	2750 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.19 SINGLE FAMILY RESIDENCE	215	215
135-171-017	Ground	VALENCIA 1999 FAMILY TRUST 6/1/99	2746 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.17 SINGLE FAMILY RESIDENCE	215	215
135-172-006	Ground	DEANE, ANDREW M	2750 STOW ST	LOS OLIVOS, CA 93441	0.35 SINGLE FAMILY RESIDENCE	215	215
135-172-007	Ground	WATERS, BRADLEY WILLIAM	2716 STOW ST	LOS OLIVOS, CA 93441	0.33 SINGLE FAMILY RESIDENCE	215	215
135-172-008	Ground	PARTRIDGE FAMILY SURVIVOR'S TRUST	2730 STOW ST	LOS OLIVOS, CA 93441	0.34 SINGLE FAMILY RESIDENCE	215	215
135-172-009	Ground	MOSELEY, MELISSA A TRUST 12/3/12	2740 STOW ST	LOS OLIVOS, CA 93441	0.34 SINGLE FAMILY RESIDENCE	215	215
135-172-011	Ground	DEAN ROBERT ALLEN/JOANNE MARIE TRUSTEES (for) DEAN FAMILY TRUST 9-25-	2535 PARK ST	LOS OLIVOS, CA 93441	0.68 SINGLE FAMILY RESIDENCE	215	215
135-172-014	Ground	LOVE FAMILY TRUST 10/15/98	2555 PARK ST	LOS OLIVOS, CA 93441	0.74 SINGLE FAMILY RESIDENCE	215	215
135-172-015	Ground	ROSENBERRY FAMILY TRUST 1/28/19	2755 CORRAL DE QUATI RD	LOS OLIVOS, CA 93441	0.79 SINGLE FAMILY RESIDENCE	215	215
135-172-016	Ground	JEPPESEN, ROBERT G & HAMMONDS, SANDRA LIVING TRUST 11/9/18	2753 CORRAL DE QUATI RD	LOS OLIVOS, CA 93441	0.79 SINGLE FAMILY RESIDENCE	215	215
135-172-017	Ground	HUMPHREY, JEFF	2751 CORRAL DE QUATI RD	LOS OLIVOS, CA 93441	1.37 SINGLE FAMILY RESIDENCE	284	284
135-172-018	Ground	CRAVEN WINSTON K	2715 CORRAL DE QUATI RD	LOS OLIVOS, CA 93441	0.59 SINGLE FAMILY RESIDENCE	215	215
135-180-005	Ground	SURVIVOR'S TRUST UNDER NEWMAN FAMILY TRUST OF 1978	2678 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	1.85 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-180-006	Ground	ERICKSON, LONNIE & SUSAN FAMILY TRUST 8/22/16	2690 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	1.85 SINGLE FAMILY RESIDENCE	284	284
135-180-009	Ground	HERTHEL REVOCABLE LIVING TRUST 3/1/98			3.04 VACANT	0	284
135-180-010	Ground	HERTHEL REVOCABLE LIVING TRUST 3/1/98			3.04 VACANT	0	284
135-191-002	Ground	RICHTER FAMILY TRUST 11/24/00	2680 GRAND AVE	LOS OLIVOS, CA 93441	0.32 SINGLE FAMILY RESIDENCE	215	215
135-191-003	Ground	SAARLOOS, BRADLEY W REVOCABLE LIVING TRUST 09/12/2011	2670 GRAND AVE	LOS OLIVOS, CA 93441	0.32 SINGLE FAMILY RESIDENCE	215	215
135-191-004	Ground	LOHNAS FAMILY TRUST	2690 GRAND AVE	LOS OLIVOS, CA 93441	0.32 SINGLE FAMILY RESIDENCE	215	215
135-191-005	Ground	SCOTT, BRIAN & KIDD, SUZANNE P FAMILY TRUST 5/24/02	2430 PARK ST	LOS OLIVOS, CA 93441	0.39 SINGLE FAMILY RESIDENCE	215	215
135-191-006	Ground	COLLISON, JACK L A PROFESSIONAL LAW CORP 401(K) PROFIT SHARING PLAN	2490 PARK ST	LOS OLIVOS, CA 93441	0.32 SINGLE FAMILY RESIDENCE	215	215
135-191-007	Ground	GRANT, MICHAEL H & LIDA M LIVING TRUST 2/8/18	2470 PARK ST	LOS OLIVOS, CA 93441	0.39 SINGLE FAMILY RESIDENCE	215	215
135-191-008	Ground	HYNDMAN, KENNETH & JUDITH LIVING TRUST	2660 GRAND AVE	LOS OLIVOS, CA 93441	0.42 SINGLE FAMILY RESIDENCE	215	215
135-191-010	Ground	READYHOUGH FAMILY TRUST	2671 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.39 SINGLE FAMILY RESIDENCE	215	215
135-191-013	Ground	LAYTON 2008 FAMILY TRUST 11/12/08	2683 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.39 SINGLE FAMILY RESIDENCE	215	215
135-191-014	Ground	GRAY, KELLY BOWLES TRUST 10/23/02	2657 STOW ST	LOS OLIVOS, CA 93441	0.44 SINGLE FAMILY RESIDENCE	215	215
135-191-015	Ground	HALL, JOHN D	2656 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.52 SINGLE FAMILY RESIDENCE	215	215
135-191-016	Ground	STOW STREET LIVING TRUST 4/17/14	2671 STOW ST	LOS OLIVOS, CA 93441	0.32 SINGLE FAMILY RESIDENCE	215	215

135-191-017	Ground	BRADY, CHRISTOPHER	2681 STOW ST	LOS OLIVOS, CA 93441	0.32 SINGLE FAMILY RESIDENCE	215	215
135-191-018	Ground	HEYERLY FAMILY TRUST 9/24/2008	2655 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.51 SINGLE FAMILY RESIDENCE	215	215
135-191-019	Ground	PONGRACIC, ELIZABETH	2670 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.39 SINGLE FAMILY RESIDENCE	215	215
135-191-020	Ground	PALMER FAMILY TRUST 09/20/2016	2680 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.39 SINGLE FAMILY RESIDENCE	215	215
135-192-002	Ground	LARSON, MICHAEL S FAMILY TRUST 8/19/07	2681 EASTON AVE	LOS OLIVOS, CA 93441	0.69 SINGLE FAMILY RESIDENCE	215	215
135-192-003	Ground	ALLEN, MATTHEW T	2671 EASTON AVE	LOS OLIVOS, CA 93441	0.79 SINGLE FAMILY RESIDENCE	215	215
135-192-004	Ground	MANNING, ANDREW J LIVING TRUST 3/16/00	2670 STOW ST	LOS OLIVOS, CA 93441	0.79 SINGLE FAMILY RESIDENCE	215	215
135-192-005	Ground	WILCOX FAMILY TRUST 7/11/17	2688 STOW ST	LOS OLIVOS, CA 93441	0.69 SINGLE FAMILY RESIDENCE	215	215
135-200-002	Ground	LYKKEN 1992 TRUST	2632 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	1.3 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-200-003	Ground	CAPALBO, LAWRENCE J	2650 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	1.65 SINGLE FAMILY RESIDENCE	284	284
135-200-006	Ground	HERTHEL REVOCABLE LIVING TRUST 3/1/98			3.03 VACANT	0	284
135-200-007	Ground	HERTHEL REVOCABLE LIVING TRUST 3/1/98			3.03 VACANT	0	284
135-210-018	Ground	ASAKAWA & EKELAND REVOCABLE TRUST 3/13/12	2614 STOW ST	LOS OLIVOS, CA 93441	0.73 SINGLE FAMILY RESIDENCE	215	215
135-210-019	Ground	CALLOS, JOHN D	2641 EASTON AVE	LOS OLIVOS, CA 93441	0.87 SINGLE FAMILY RESIDENCE	215	215
135-210-020	Ground	VOORHIS FAMILY TRUST 9/5/07	2621 EASTON AVE	LOS OLIVOS, CA 93441	0.87 SINGLE FAMILY RESIDENCE	215	215
135-210-021	Ground	SHEPHERD LAURI	2612 STOW ST	LOS OLIVOS, CA 93441	1.02 SINGLE FAMILY RESIDENCE	284	284
135-210-022	Ground	O'NEILL FAMILY TRUST 3/31/10	2644 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.55 SINGLE FAMILY RESIDENCE	215	215
135-210-023	Ground	CLARK FAMILY TRUST 4/30/12	2638 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.53 SINGLE FAMILY RESIDENCE	215	215
135-210-024	Ground	SARGEANT, BONITA L TRUST 11/1/13	2649 STOW ST	LOS OLIVOS, CA 93441	1.06 SINGLE FAMILY RESIDENCE	284	284
135-210-026	Ground	DIETENHOFER, JAIME	2495 SANTA YNEZ ST	LOS OLIVOS, CA 93441	0.58 SINGLE FAMILY RESIDENCE	215	215
135-210-027	Ground	YODER, KEVIN	2485 SANTA YNEZ ST	LOS OLIVOS, CA 93441	0.48 SINGLE FAMILY RESIDENCE	215	215
135-210-029	Ground	GRABER, GREGORY & CATHERINE TRUST	2648 GRAND AVE	LOS OLIVOS, CA 93441	0.448 SINGLE FAMILY RESIDENCE	215	215
135-210-031	Ground	KORTE ROBERT L/JUDITH A TRUSTEES (for) KORTE REV TR 7/17/98	2600 GRAND AVE	LOS OLIVOS, CA 93441	0.344 SINGLE FAMILY RESIDENCE	215	215
135-210-033	Ground	MULLIN CHRISTOPHER D/SANDRA E	2445 SANTA YNEZ ST	LOS OLIVOS, CA 93441	0.413 SINGLE FAMILY RESIDENCE	215	215
135-210-035	Ground	WEIRICH DAVID A/DOLORES M TRUSTEES (for) WEIRICH DAVID/DOLORES FAM T	2640 GRAND AVE	LOS OLIVOS, CA 93441	0.344 SINGLE FAMILY RESIDENCE	215	215
135-210-037	Ground	SCHOEN FAMILY TRUST 4/15/09	2620 GRAND AVE	LOS OLIVOS, CA 93441	0.344 SINGLE FAMILY RESIDENCE	215	215
135-210-039	Ground	CGP MANAGEMENT CO	2647 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.537 SINGLE FAMILY RESIDENCE	215	215
135-210-041	Ground			LOS OLIVOS, CA 93441	0.413 SINGLE FAMILY RESIDENCE	215	215
135-210-043	Ground	VAUGHAN, EARLE	2621 SAN MARCOS AVE	LOS OLIVOS, CA 93441	0.413 SINGLE FAMILY RESIDENCE	215	215
135-220-006	Ground	GILL, BROOKS A SEPARATE PROPERTY TRUST 6/7/93	2534 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	0.25 VACANT	0	215
135-220-072	Ground	LOS OLIVOS ELEMENTARY SCH & DIST/SB CO	2540 ALAMO PINTADO AVE	LOS OLIVOS, CA 93441	9.617 SCHOOLS	943	943
135-240-025	Ground	ELLIOTT FAMILY TRUST	2566 GRAND AVE	LOS OLIVOS, CA 93441	3 SINGLE FAMILY RESIDENCE	284	284
135-240-027	Ground	PALLADINO TRUST 5/10/07	2467 ROBLAR AVE	LOS OLIVOS, CA 93441	0.958 SINGLE FAMILY RESIDENCE	215	215
135-240-029	Ground	KNOLES FAMILY BYPASS TRUST	2495 ROBLAR AVE	LOS OLIVOS, CA 93441	1 SINGLE FAMILY RESIDENCE	284	284
135-240-037	Ground	DONNER SEAN O/MAURENE E	2594 GRAND AVE	LOS OLIVOS, CA 93441	1 SINGLE FAMILY RESIDENCE	284	284
135-240-038	Ground	BONE, MICHELLE SUZANNE REVOCABLE TRUST	2440 SANTA YNEZ ST	LOS OLIVOS, CA 93441	2 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-240-039	Ground	VANDERWILT, MERRILL A	2485 ROBLAR AVE	LOS OLIVOS, CA 93441	1.31 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-240-040	Ground	VANDERWILT MERRILL A/LINDA D	2491 ROBLAR AVE	LOS OLIVOS, CA 93441	1 SINGLE FAMILY RESIDENCE	284	284
135-240-041	Ground	PROBERT FAM TR 5/23/88	GRAND AVE	LOS OLIVOS, CA 93441	1 VACANT	0	284
135-240-042	Ground	PROBERT FAM TR 5/23/88	GRAND AVE	LOS OLIVOS, CA 93441	1 VACANT	0	284
135-240-043	Ground	PROBERT FAM TR 5/23/88	2465 GRAND AVE	LOS OLIVOS, CA 93441	1.49 SINGLE FAMILY RESIDENCE	284	284
135-240-049	Ground	WARREN, RAYMOND L	2492 GRAND AVE	LOS OLIVOS, CA 93441	0.87 SINGLE FAMILY RESIDENCE	215	215
135-240-050	Ground	RASMUSSEN, HENRY	2520 GRAND AVE	LOS OLIVOS, CA 93441	0.87 SINGLE FAMILY RESIDENCE	215	215
135-240-051	Ground	LEPLEY ROGER J/PATRICIA M FLICK	2526 GRAND AVE	LOS OLIVOS, CA 93441	1.49 SINGLE FAMILY RESIDENCE	284	284
135-240-052	Ground	ZIGLER, KEN & VIVICA L FAMILY TRUST 11/27/00	2500 GRAND AVE	LOS OLIVOS, CA 93441	1 SINGLE FAMILY RESIDENCE	284	284
135-240-053	Ground	ECONOMON, ANDREW	2550 GRAND AVE	LOS OLIVOS, CA 93441	0.82 SINGLE FAMILY RESIDENCE	215	215
135-240-054	Ground	KNIGHT FAMILY TRUST 12/13/16	2540 GRAND AVE	LOS OLIVOS, CA 93441	2.18 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-240-067	Ground	HEYDARPOUR FAMILY REVOCABLE TRUST 9/17/98	2520 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	0.93 RANCHO ESTATES (RURAL HOME SITES)	215	215
135-240-068	Ground	HOLLADAY FAMILY TRUST	2475 GRAND AVE	LOS OLIVOS, CA 93441	0.93 SINGLE FAMILY RESIDENCE	215	215
135-240-072	Ground	HUGHES, GLENNA M TRUST 7/30/13	2472 GRAND AVE	LOS OLIVOS, CA 93441	0.88 SINGLE FAMILY RESIDENCE	215	215
135-240-073	Ground	RAZO, FRED/LORETTA LIVING TRUST	2480 GRAND AVE	LOS OLIVOS, CA 93441	0.89 SINGLE FAMILY RESIDENCE	215	215
135-240-074	Ground	HUGHES, GLENNA M TRUSTEE OF HUGHES, GLENNA M TRUST 7/30/13	2470 GRAND AVE	LOS OLIVOS, CA 93441	1.73 SINGLE FAMILY RESIDENCE	284	284
135-240-077	Ground	LIPPINCOTT, BRYAN & LAURA REVOCABLE TRUST 11/3/06	2510 SANTA BARBARA AVE	LOS OLIVOS, CA 93441	2.486 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-240-081	Ground	HARRISON, PAUL D	2455 GRAND AVE	LOS OLIVOS, CA 93441	0.98 VACANT	0	215
135-240-082	Ground	ADAMS, BRIAN	2461 GRAND AVE	LOS OLIVOS, CA 93441	1.15 SINGLE FAMILY RESIDENCE	284	284
135-240-085	Ground	MONTANARO, ARTHUR TRUST FBO JANICE L YATES	2523 GRAND AVE	LOS OLIVOS, CA 93441	1.63 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-240-086	Ground	MONTANARO, ARTHUR TRUST FBO JANICE L YATES	2515 GRAND AVE	LOS OLIVOS, CA 93441	0.82 VACANT	0	215
135-240-088	Ground	HERTHEL REVOCABLE LIVING TRUST 3/1/98	2531 GRAND AVE	LOS OLIVOS, CA 93441	3.749 PARKS/Neighborhood-Comm/restaurant	893	1340
135-240-089	Ground	HERTHEL REVOCABLE LIVING TRUST 3/1/98			7.15 VACANT	0	284
135-340-005	Ground	ROMANO, TIMOTHY S & CHANDRA D TRUST	2807 GAVIOTA ST	LOS OLIVOS, CA 93441	1.63 RANCHO ESTATES (RURAL HOME SITES)	284	284

135-340-006	Ground	D'AMELIO, FRANK	2813 GAVIOTA ST	LOS OLIVOS, CA 93441	1.29 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-340-007	Ground	KENNEDY, JOHN C	2232 KEENAN DR	LOS OLIVOS, CA 93441	0.88 SINGLE FAMILY RESIDENCE	215	215
135-340-008	Ground	WHITMORE, SUSAN REVOCABLE FAMILY TRUST	2225 KEENAN RD	LOS OLIVOS, CA 93441	0.89 RANCHO ESTATES (RURAL HOME SITES)	215	215
135-340-009	Ground	BROWN FREDERICK S/PAMELA KAPLAN	2202 KEENAN RD	LOS OLIVOS, CA 93441	1.77 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-340-010	Ground	CLINE NEIL M/SYBIL K TRUSTEES (for) CLINE FAM TR 8/21/96	2175 KEENAN RD	LOS OLIVOS, CA 93441	1.39 SINGLE FAMILY RESIDENCE	284	284
135-340-011	Ground	JARRETTE, MARLEA FRANCES	2165 KEENAN RD	LOS OLIVOS, CA 93441	1.71 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-340-012	Ground	RAISCH, ROBERT	2213 KEENAN RD	LOS OLIVOS, CA 93441	1.28 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-340-013	Ground	MARCUM FAMILY 1997 TRUST 1/11/97	2219 KEENAN RD	LOS OLIVOS, CA 93441	1 SINGLE FAMILY RESIDENCE	284	284
135-340-014	Ground	BORN, DON/DEANNA LIVING TRUST 1/5/06	2873 GAVIOTA ST	LOS OLIVOS, CA 93441	0.85 RANCHO ESTATES (RURAL HOME SITES)	215	215
135-350-005	Ground	DAPHNE LAUREL L	2999 BALLARD CANYON RD	SOLVANG, CA 93463	1 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-350-006	Ground	BOWMAN, MARILYN TRUST 3/19/02	2981 FOXEN CANYON RD	LOS OLIVOS, CA 93441	1.24 SINGLE FAMILY RESIDENCE	284	284
135-350-007	Ground	SCHMITZ, RYAN	2975 FOXEN CANYON RD	LOS OLIVOS, CA 93441	1.22 SINGLE FAMILY RESIDENCE	284	284
135-350-008	Ground	BRANQUINHO, JOHN A FAMILY TRUST	2110 RAILWAY AVE	LOS OLIVOS, CA 93441	1.15 SINGLE FAMILY RESIDENCE	284	284
135-350-009	Ground	LAWSON, JAMES EMANUEL	2985 STEELE ST	LOS OLIVOS, CA 93441	1 SINGLE FAMILY RESIDENCE	284	284
135-350-010	Ground	GLAUS, RICHARD LEE	2964 BALLARD CANYON RD	LOS OLIVOS, CA 93463	1.67 SINGLE FAMILY RESIDENCE	284	284
135-350-011	Ground	GAHAN, MICHELE KIM REVOCABLE TRUST 10/21/04	2951 FOXEN CANYON RD	LOS OLIVOS, CA 93441	1 SINGLE FAMILY RESIDENCE	284	284
135-350-012	Ground	MITCHELL, JOHN J III & SUSAN DAVIS FAMILY TRUST 6/3/04	2950 FOXEN CANYON RD	LOS OLIVOS, CA 93441	1 SINGLE FAMILY RESIDENCE	284	284
135-350-013	Ground	SCHRAGE, GREGORY B	2951 STEELE ST	LOS OLIVOS, CA 93441	1.32 RANCHO ESTATES (RURAL HOME SITES)	284	284
135-350-014	Ground	MINTZ MARK C/SUSAN I	2929 FOXEN CANYON RD	LOS OLIVOS, CA 93441	1.9 SINGLE FAMILY RESIDENCE	284	284
135-350-015	Ground	BAUTISTA/SHEPARD REVOCABLE TRUST	2927 FOXEN CANYON RD	LOS OLIVOS, CA 93441	1.02 SINGLE FAMILY RESIDENCE	284	284
135-350-016	Ground	ARME, MICHAEL EDWARD	2920 FOXEN CANYON RD	LOS OLIVOS, CA 93441	1.08 SINGLE FAMILY RESIDENCE	284	284
135-350-017	Ground	HANSON FAMILY TRUST 3/9/09	2947 STEELE ST	LOS OLIVOS, CA 93441	1 SINGLE FAMILY RESIDENCE	284	284
135-350-018	Ground	CATHCART TRUST 3/18/05	2890 FOXEN CANYON RD	LOS OLIVOS, CA 93441	1.38 SINGLE FAMILY RESIDENCE	284	284
135-350-019	Ground	MUNNEMANN, ADRIAN & JOANNE FAMILY TRUST 3/13/18	2893 FOXEN CANYON RD	LOS OLIVOS, CA 93441	1.17 SINGLE FAMILY RESIDENCE	284	284
135-350-020	Ground	MACKS FAMILY REVOCABLE TRUST 5/30/96	2911 FOXEN CANYON RD	LOS OLIVOS, CA 93441	2.63 SINGLE FAMILY RESIDENCE	284	284